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 OR L11 OR L12 OR L13 OR L14))  
 L17 16585 SEA FILE=HCAPLUS ABB=ON PLU=ON "LIGHT STABILIZERS"+PFT,NT  
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 L18 8000 SEA FILE=HCAPLUS ABB=ON PLU=ON "UV STABILIZERS"+PFT,NT/CT  
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L22 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:451365 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:8571  
 TITLE: Use of 4-cyano-naphthalene-1, 8-dicarboximide  
 derivatives and related compounds to protect  
 organic material from light damage  
 INVENTOR(S): Schambony, Simon; Glaser, Alban; Sens, Ruediger;  
 Boehm, Arno; Reichelt, Helmut  
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 93 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005047265	A1	20050526	WO 2004-EP12873	20041112
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 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,  
 SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
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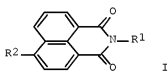
DE 10353328 A1 20050616 DE 2003-10353328 20031114  
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 US 2005171252 A1 20050804 US 2004-770603 20040204  
 EP 1687278 A1 20060809 EP 2004-818398 20041112

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 CN 1902180 A 20070124 CN 2004-80040373 20041112

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 BR 2004016474 A 20070306 BR 2004-16474 20041112  
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 JP 2007534781 T 20071129 JP 2006-538810 20041112  
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 MX 2006PA05334 A 20060719 MX 2006-PA5334 20060512  
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 US 2007100033 A1 20070503 US 2006-579441 20060515

PRIORITY APPLN. INFO.: DE 2003-10353328 A 20031114  
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 US 2004-770603 A 20040204  
 WO 2004-EP12873 W 20041112

OTHER SOURCE(S): MARPAT 143:8571  
 ED Entered STN: 27 May 2005  
 GI



AB The present invention relates to naphthalene-1,8-dicarboxylic monoimides I, wherein R1 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, heterocycloalkyl, aryl, or heteroaryl and R2 = radical containing  $\geq 1$   $\pi$  electron system containing a carbon atom and  $\geq 1$  further atom selected from carbon, oxygen, and nitrogen, with the proviso that the radical contains  $\geq 1$  atom other than carbon. Thus, 27.7 g 4-bromonaphthalene-1,8-dicarboxylic anhydride and 19.0 g 2,6-diisopropylaniline were reacted at 200° for 3 h to give 26.2 g 4-bromo-N-(2,6-diisopropylphenyl)naphthalene-1,8-dicarboximide with m.p. 277°, 24.8 g of which was reacted with 7.5 g copper cyanide at 210° for 4 h to give 15.6 g 4-cyano-N-(2,6-diisopropylphenyl)naphthalene-1,8-dicarboximide with  $\lambda_{\max}$  352 nm and m.p. 291°, the resulting compound (0.4%) was mixed with Polyclear T 94, kneaded, and extruded to give a test piece showing good UV protection.

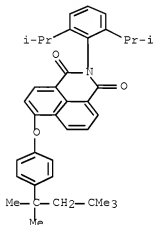
IT 852282-85-4P 852282-90-7P 852282-91-8P  
 852282-92-9P 852282-93-0P 852282-94-1P

852282-95-2P 852282-96-3P 852282-97-4P  
852282-98-5P

(UV absorber; preparation of cyanonaphthalenedicarboximide derivs. and related compds. to protect organic material from light damage)

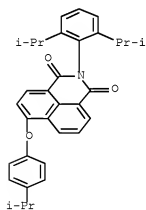
RN 852282-89-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-methylethyl)phenyl]-6-[4-(1,1,3,3-tetramethylbutyl)phenoxy]- (CA INDEX NAME)



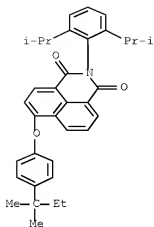
RN 852282-90-7 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-methylethyl)phenyl]-6-[4-(1-methylethyl)phenoxy]- (CA INDEX NAME)



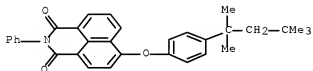
RN 852282-91-8 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-methylethyl)phenyl]-6-[4-(1,1-dimethylpropyl)phenoxy]- (CA INDEX NAME)



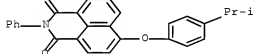
RN 852282-92-9 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-phenyl-6-[4-(1,1,3,3-tetramethylbutyl)phenoxy]- (CA INDEX NAME)



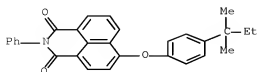
RN 852282-93-0 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-[4-(1-methylethyl)phenoxy]-2-phenyl- (CA INDEX NAME)



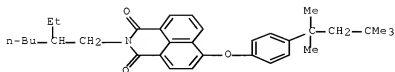
RN 852282-94-1 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-[4-(1,1-dimethylpropyl)phenoxy]-2-phenyl- (CA INDEX NAME)



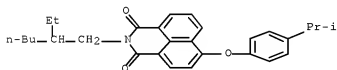
RN 852282-95-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(2-ethylhexyl)-6-[4-(1,1,3,3-tetramethylbutyl)phenoxy]- (CA INDEX NAME)



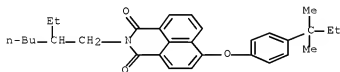
RN 852282-96-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(2-ethylhexyl)-6-[4-(1-methylethyl)phenoxy]- (CA INDEX NAME)



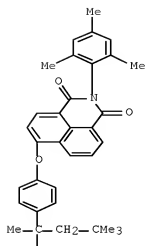
RN 852282-97-4 HCAPLUS

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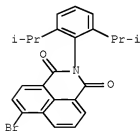


RN 852282-98-5 HCAPLUS

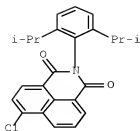
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-[4-(1,1,3,3-tetramethylbutyl)phenoxy]-2-(2,4,6-trimethylphenyl)- (CA INDEX NAME)



IT 187536-93-2P 852282-88-3P  
 (intermediate; preparation of cyanonaphthalenedicarboximide derivs. and  
 related compds. to protect organic material from light damage)  
 RN 187536-93-2 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-  
 methylethyl)phenyl]-6-bromo- (CA INDEX NAME)



RN 852282-88-3 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-  
 methylethyl)phenyl]-6-chloro- (CA INDEX NAME)



IT 9002-88-4 9003-07-0, Polypropylene 9003-53-6  
 , Polystyrol 144C 9003-54-7, Acrylonitrile-styrene copolymer  
 9003-56-5, Acrylonitrile-butadiene-styrene copolymer  
 106677-58-1, Terluran GP 22  
 (preparation of cyanonaphthalenedicarboximide derivs. and related  
 compds. to protect organic material from light damage)  
 RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (CA INDEX NAME)

CM 1  
 CRN 74-85-1  
 CMF C2 H4



RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1  
 CRN 115-07-1  
 CMF C3 H6



RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1  
 CRN 100-42-5  
 CMF C8 H8



RN 9003-54-7 HCAPLUS  
 CN 2-Propenenitrile, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1  
 CMF C3 H3 N



CM 2

CRN 100-42-5  
 CMF C8 H8



RN 9003-56-9 HCAPLUS  
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

CM 1

CRN 107-13-1  
 CMF C3 H3 N



CM 2

CRN 106-99-0  
 CMF C4 H6



CM 3

CRN 100-42-5



CMF C8 H8



RN 106677-58-1 HCAPLUS

CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene, graft  
(CA INDEX NAME)

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CRN 107-13-1

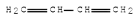
CMF C3 H3 N



CM 2

CRN 106-99-0

CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM C07D221-14

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 17, 45, 46, 62, 63

IT Light stabilizers

UV stabilizers

(preparation of cyanonaphthalenedicarboximide derivs. and related  
comps. to protect organic material from light damage)

IT Acrylic polymers, uses

Polycarbonates, uses

Polyesters, uses

Polyolefins

Polyurethanes, uses

Polyvinyl acetals

Polyvinyl butyrals

(preparation of cyanonaphthalenedicarboximide derivs. and related compds. to protect organic material from light damage)

IT 852282-83-8P 852282-84-9P 852282-85-0P 852282-86-1P

852282-87-2P 852282-89-4P 852282-90-7P

852282-91-8P 852282-92-9P 852282-93-0P

852282-94-1P 852282-95-2P 852282-96-3P

852282-97-4P 852282-98-5P

(UV absorber; preparation of cyanonaphthalenedicarboximide derivs. and related compds. to protect organic material from light damage)

IT 187536-93-2P 852282-86-3P

(intermediate; preparation of cyanonaphthalenedicarboximide derivs. and related compds. to protect organic material from light damage)

IT 9002-88-4 9003-07-0, Polypropylene 9003-49-0,

Polybutyl acrylate 9003-53-6, Polystyrol 144C

9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9

, Acrylonitrile-butadiene-styrene copolymer 9003-63-8, Polybutyl

methacrylate 9011-14-7, Polymethyl methacrylate 24936-68-3,

Makrolon 2800, uses 24968-12-5, Polybutylene terephthalate

25038-59-9, Polyclear T 94, uses 106677-58-1, Terluran GP 22

(preparation of cyanonaphthalenedicarboximide derivs. and related compds. to protect organic material from light damage)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:141200 HCAPLUS Full-text

DOCUMENT NUMBER: 142:254568

TITLE: Methods and compositions for increasing the efficacy of biologically-active ingredients such as antitumor agents

INVENTOR(S): Windsor, J. Brian; Roux, Stan J.; Lloyd, Alan M.; Thomas, Collin E.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

SOURCE: PCT Int. Appl., 243 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

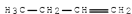
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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WO 2005014777	A3	20050915		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,				

NE, SN, TD, TG

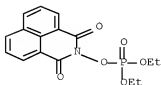
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AU 2003304398	A1	20050225	AU 2003-304398	20031016
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EP 1576150	A2	20050921	EP 2003-816736	20031016
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EP 1576150	A3	20051102		
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PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006276339	A1	20061207	US 2006-531744	20060123
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PRIORITY APPLN. INFO.:			US 2002-418803P	P 20021016
			<--	
			WO 2003-US32667	W 20031016
			<--	
ED	Entered STN: 18 Feb 2005			
AB	The invention provides methods and compns. for modulating the sensitivity of cells to cytotoxic compds. and other active agents. In accordance with the invention, compns. are provided comprising combinations of ectophosphatase inhibitors and active agents. Active agents include antibiotics, fungicides, herbicides, insecticides, chemotherapeutic agents, and plant growth regulators. By increasing the efficacy of active agents, the invention allows use of compns. with lowered concns. of active ingredients.			
IT	9003-28-5 (Polyvis O-SH; methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)			
RN	9003-28-5 HCAPLUS			
CN	1-Butene, homopolymer (CA INDEX NAME)			
CM	1			
CRN	106-98-9			
CMF	C4 H8			



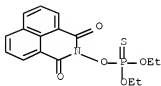
IT 1491-41-4 2668-92-0 9003-18-3  
 9003-27-4 9003-29-6 9010-77-3  
 9017-80-5 25085-34-1  
 (methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)

RN 1491-41-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(diethoxyphosphinyl)oxy]-  
 (CA INDEX NAME)



RN 2668-92-0 HCAPLUS  
 CN Phosphorothioic acid, O-(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)  
 O,O-diethyl ester (CA INDEX NAME)



RN 9003-18-3 HCAPLUS  
 CN 2-Propenenitrile, polymer with 1,3-butadiene (CA INDEX NAME)

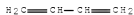
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CRN 107-13-1  
 CMF C3 H3 N



CM 2

CRN 106-99-0  
 CMF C4 H6



RN 9003-27-4 HCAPLUS  
 CN 1-Propene, 2-methyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 115-11-7  
 CMF C4 H8



RN 9003-29-6 HCAPLUS

CN Butene, homopolymer (CA INDEX NAME)

CM 1

CRN 25167-67-3

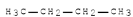
CMF C4 H8

CCI IDS

CM 2

CRN 106-97-8

CMF C4 H10



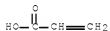
RN 9010-77-9 HCAPLUS

CN 2-Propenoic acid, polymer with ethene (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

CRN 74-85-1

CMF C2 H4



RN 9017-80-5 HCAPLUS

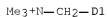
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, chloride (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 26616-35-3

CMF C12 H18 N . Cl

CCI IDS



RN 25085-34-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 100-42-5

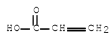
CMF C8 H8



CM 2

CRN 79-10-7

CMF C3 H4 O2



IT 9002-88-4

(oxidized; methods and compns. for increasing efficacy of biol.  
active ingredients such as antitumor agents)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM C12N  
 CC 1-6 (Pharmacology)  
 IT Stabilizing agents  
     (Nuostabe V 1913; methods and compns. for increasing efficacy of  
     biol. active ingredients such as antitumor agents)  
 IT Amino acids, biological studies  
     Aminoglycosides  
     Androgens  
     Asbestos  
     Asphalt  
     Bentonite, biological studies  
     Canola oil  
     Carbon black, biological studies  
     Caseins, biological studies  
     Castor oil  
     Chlorinated natural rubber  
     Coal tar  
     Coconut oil  
     Cod liver oil  
     Collagens, biological studies  
     Corn oil  
     Corticosteroids, biological studies  
     Cottonseed oil  
     Creosote oil  
     Cytokinins  
     Diatomite  
     Epoxy resins, biological studies  
     Essential oils  
     Feldspar-group minerals  
     Fertilizers  
     Gasoline  
     Gelatins, biological studies  
     Gibberellins  
     Glycopeptides  
     Granite, biological studies  
     Growth regulators, plant  
     Humic acids  
     Jojoba oil  
     Kaolin, biological studies  
     Kerosene  
     Lard  
     Ligroine  
     Lime (chemical)  
     Linseed oil  
     Macrolides  
     Mica-group minerals, biological studies  
     Naphthenic acids, biological studies  
     Naphthenic oils  
     Natural products, pharmaceutical  
     Nitrile rubber, biological studies  
     Olive oil  
     Palm oil  
     Paraffin oils  
     Paraffin waxes, biological studies  
     Peanut oil  
     Perlite  
     Petrolatum  
     Petroleum hydrocarbons  
     Petroleum resins  
     Petroleum spirits

Phenols, biological studies  
 Phosphoproteins  
 Plastics, biological studies  
 Polyamide fibers, biological studies  
 Polyamides, biological studies  
 Polyenes  
 Polyoxyalkylenes, biological studies  
 Polyvinyl butyrals  
 Progestogens  
 Protein hydrolyzates  
 Pumice  
 Pyrethrins  
 Rape oil  
 Resins  
 Rosin  
 Rubber, biological studies  
 Safflower oil  
 Sand  
 Saponins  
 Shale  
 Shellac  
 Silica gel, biological studies  
 Soapstone  
 Soybean oil  
 Tall oil  
 Tallow  
 Tetracyclines  
 Tung oil  
 Turpentine  
 Waxes  
 Wood tar  
 Zeins

(methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)

- IT 9003-28-5  
 (Polyvis O-SH; methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)
- IT 1314-13-2, Zinc oxide (ZnO), biological studies 1314-23-4, Zirconium oxide (ZrO<sub>2</sub>), biological studies 1314-80-3, Phosphorus sulfide (P<sub>2</sub>S<sub>5</sub>) 1314-84-7, Zinc phosphide (Zn<sub>3</sub>P<sub>2</sub>) 1317-36-8, Lead oxide (PbO), biological studies 1317-38-0, Copper oxide (CuO), biological studies 1317-39-1, Copper oxide (Cu<sub>2</sub>O), biological studies 1318-00-9, Vermiculite (Mg<sub>0.33</sub>[Mg<sub>2</sub>-3(Al<sub>0</sub>-1Fe<sub>0</sub>-1)O-1](Si<sub>2.33</sub>-3.33Al<sub>0.67</sub>-1.67)(OH)2O<sub>10</sub>.4H<sub>2</sub>O) 1319-53-5, Malachite (Cu<sub>2</sub>(CO<sub>3</sub>)(OH)<sub>2</sub>) 1319-77-3 1320-67-8 1320-79-2 1322-98-1 1323-19-9 1327-31-7, Lead arsenate hydroxide (Pb<sub>5</sub>(AsO<sub>4</sub>)<sub>3</sub>(OH)) 1327-43-1 1327-44-2 1327-53-3, Arsenic oxide (As<sub>2</sub>O<sub>3</sub>) 1328-53-6, C.I. Pigment Green 7 1330-16-1 1330-20-7, biological studies 1330-43-4, Boron sodium oxide (B<sub>4</sub>Na<sub>2</sub>O<sub>7</sub>) 1330-85-4 1332-40-7 1332-65-6, Copper chloride hydroxide (Cu<sub>2</sub>Cl(OH)<sub>3</sub>) 1332-77-0, Boron potassium oxide (B<sub>4</sub>K<sub>2</sub>O<sub>7</sub>) 1333-08-0 1333-16-0 1333-22-8, Copper hydroxide sulfate (Cu<sub>4</sub>(OH)<sub>6</sub>(SO<sub>4</sub>)) 1333-83-1, Sodium fluoride (Na(F<sub>2</sub>)) 1334-75-4 1334-77-6 1335-30-4 1336-15-8, Calcium copper chloride oxide 1336-21-6, Ammonium hydroxide ((NH<sub>4</sub>)(OH)) 1340-69-8, Quaternium 18-bentonite 1343-88-0 1343-98-2, Silicic acid 1344-00-9 1344-08-7, Sodium sulfide (Na<sub>2</sub>(Sx)) 1344-09-8 1344-28-1, Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), biological studies 1344-43-0, Manganese oxide (MnO), biological studies 1344-67-8, Copper chloride 1344-72-5 1344-73-6 1344-74-7 1344-81-6, Calcium sulfide (Ca(Sx)) 1398-61-4, Chitin 1405-89-6, Bacitracin zinc 1420-07-1 1444-64-0



1454-85-9, 1-Heptadecanol	1461-22-9	1490-04-6	1491-41-4	
1563-66-2	1570-64-5	1582-09-8	1594-56-5	1600-27-7
1610-18-0	1634-78-2	1646-87-3	1646-88-4	1689-83-4
1689-99-2	1701-93-5	1702-17-6	1746-01-6	1746-81-2
1757-18-2	1762-95-4	1771-07-9	1776-83-6	1861-32-1
1891-95-8	1897-45-6	1910-42-5	1912-24-9	1912-24-9D,
dealkylated	1912-25-0	1912-26-1	1918-00-9	1918-02-1
1918-02-1D, alkanolamine salt		1918-08-7	1918-11-2	1918-13-4
1918-16-7	1918-18-9	1928-43-4	1928-45-6	1928-47-8
1928-57-0	1928-58-1	1929-73-3	1929-77-7	1929-88-0
1940-43-8	1954-81-0	1966-58-1	1967-16-4	1982-47-4
1982-69-0	1983-10-4	1984-06-1	2008-39-1	2008-41-5
2016-48-0	2032-59-9	2032-65-7	2050-99-9	2074-50-2
2104-64-5	2104-96-3	2122-70-5	2155-70-6	2163-68-0
2163-79-3	2163-80-6	2164-07-0	2164-08-1	2164-17-2
2179-25-1	2212-54-6	2212-63-7	2212-67-1	2227-17-0
2235-54-3	2244-21-5	2275-06-1	2275-14-1	2275-18-5
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glycosides	2282-34-0	2300-66-5	2302-17-2	2303-17-5
2310-17-0	2312-76-7	2321-53-1	2327-02-8	2353-45-9
2402-95-1	2425-06-1	2425-10-7	2425-25-4	2425-66-3
2439-00-1	2439-99-8	2440-22-4	2463-84-5	2465-65-8
2492-26-4	2497-06-5	2497-07-6	2532-49-2	2536-26-7
2540-82-1	2544-94-7	2545-59-7	2545-60-0	2577-72-2
2588-03-6	2588-04-7	2588-05-8	2588-06-9	2591-21-1
2593-15-9	2595-54-2	2597-03-7	2597-92-4	2597-93-5
2597-97-9	2600-69-3	2610-86-8	2624-17-1	2631-37-0
2635-10-1	2636-26-2	2637-34-5, 2(1H)-Pyridinethione		2642-71-9
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2668-92-0	2669-32-1	2674-91-1	2675-77-6	2682-20-4
2686-99-9	2689-43-2	2699-79-8, Sulfuryl fluoride		2701-86-2
2703-13-1	2759-71-9	2764-72-9	2778-04-3	2782-57-2
2797-51-5	2809-21-4	2813-95-8	2875-41-4D, N-alkyl derivs.	2782-70-9
2893-78-9	2905-69-3	2917-32-0	2921-88-2	2934-07-8
2941-55-1	2953-29-9	2961-61-7	2961-62-8	2939-80-2

(methods and compns. for increasing efficacy of biol. active ingredients such as antitumor agents)

IT	7600-50-2	7601-54-9	7631-89-2	7631-90-5	7631-95-0	7631-99-4,
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7632-05-5	7646-85-7, Zinc chloride (ZnCl <sub>2</sub> ), biological studies					
7646-93-7	7647-01-0, Hydrochloric acid, biological studies					
7647-14-5, Sodium chloride (NaCl), biological studies					7647-15-6,	
Sodium bromide (NaBr), biological studies					7664-38-2, Phosphoric acid, biological studies	
7664-39-3, Hydrofluoric acid, biological studies					7664-41-7, Ammonia, biological studies	
7664-93-9, Sulfuric acid, biological studies					7673-09-8	7681-11-0, Potassium iodide (KI), biological studies
7681-38-1	7681-49-4, Sodium fluoride (NaF), biological studies				7681-52-9	7681-53-0
7681-55-4, Copper iodide (CuI)					7681-82-5, Sodium iodide (NaI), biological studies	
7681-93-8	7696-12-0	7697-37-2, Nitric acid, biological studies			7700-17-6	7704-34-9, Sulfur, biological studies
7705-08-0, Iron chloride (FeCl <sub>3</sub> ), biological studies					7720-78-7	
7721-15-5	7722-64-7	7722-84-1, Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ), biological studies			7722-88-5	7723-14-0, Phosphorus, biological studies
7726-95-6, Bromine, biological studies					7727-21-1	
7727-37-9, Nitrogen, biological studies					7727-43-7	7732-18-5, Water, biological studies
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7757-82-6, Sulfuric acid disodium salt, biological studies					7757-83-7	
7758-02-3, Potassium bromide (KBr), biological studies					7758-05-6	

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 7758-89-6, Copper chloride (CuCl) 7758-98-7, Sulfuric acid  
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 7774-29-0, Mercury iodide (HgI<sub>2</sub>) 7775-09-9 7775-11-3 7775-14-6  
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 7778-39-4, Arsenic acid (H<sub>3</sub>AsO<sub>4</sub>) 7778-44-1 7778-50-9 7778-53-2  
 7778-54-3 7778-66-7 7778-70-3 7778-73-6 7778-77-0 7778-80-5,  
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 7782-42-5, Graphite, biological studies 7782-49-2, Selenium,  
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 7782-63-0 7782-68-5, Iodic acid (HIO<sub>3</sub>) 7783-06-4, Hydrogen sulfide  
 (H<sub>2</sub>S), biological studies 7783-18-8 7783-20-2, Sulfuric acid  
 diammonium salt, biological studies 7783-28-0 7783-33-7  
 7783-85-9 7783-90-6, Silver chloride (AgCl), biological studies  
 7783-96-2, Silver iodide (AgI) 7784-09-0 7784-24-9 7784-26-1  
 7784-38-5 7784-40-9 7784-44-3 7784-46-5 7785-87-7 7785-88-8  
 7786-30-3, Magnesium chloride (MgCl<sub>2</sub>), biological studies 7786-34-7  
 7786-80-3 7786-81-4 7789-00-6 7789-09-5 7789-12-0 7789-29-9,  
 Potassium fluoride (K(HF<sub>2</sub>)) 7789-38-0 7790-92-3, Hypochlorous acid  
 7791-03-9 7791-18-6 7791-25-5, Sulfuryl chloride 7803-51-2,  
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 8003-06-3 8003-19-8D, derivs. 8004-87-3, C.I. Basic Violet 1  
 8005-46-7 8011-63-0, Bordeaux mixture 8012-69-9 8013-17-0  
 8015-35-8 8018-01-7 8022-00-2 8023-58-3, Sustane 3 8029-29-6,  
 Bandane 8030-15-7, Turgasept 8030-53-3 8063-85-2 8064-49-1  
 8065-36-9 8065-48-3 8066-01-1 8068-77-7 8070-76-6 8071-40-7  
 8073-53-8 8075-57-8 8076-84-4 9000-07-1, Carrageenan  
 9000-28-6, Gum ghatti 9000-30-0, Guar gum 9000-40-2, Carob gum  
 9000-65-1, Gum tragacanth 9001-73-4, Papain 9002-86-2 9003-01-4  
 9003-05-8 9003-11-6D, alkyl ethers, I<sub>2</sub> complexes 9003-18-3  
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 Cellulose, biological studies 9004-57-3 9004-58-4 9004-62-0  
 9004-65-3 9004-67-5 9004-70-0 9004-82-4 9005-25-8D, Starch,  
 α-type, amycol, biological studies 9005-38-3 9005-53-2,  
 Lignin, biological studies 9006-42-2, Metiram 9010-77-9  
 9012-76-4, Chitosan 9015-68-3, Asparaginase 9016-00-6,  
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 9080-17-5, Ammonium sulfide ((NH<sub>4</sub>)<sub>2</sub>(Sx)) 10007-85-9 10022-31-8  
 10024-97-2, Nitrogen oxide (N<sub>2</sub>O), biological studies 10025-67-9,  
 Sulfur chloride (S<sub>2</sub>Cl<sub>2</sub>) 10025-85-1, Nitrogen chloride (NCl<sub>3</sub>)  
 10028-15-6, Ozone, biological studies 10028-22-5 10028-24-7  
 10034-85-2, Hydriodic acid 10039-54-0 10042-84-9 10043-01-3  
 10043-35-3, Boric acid (H<sub>3</sub>BO<sub>3</sub>), biological studies 10043-52-4,  
 Calcium chloride (CaCl<sub>2</sub>), biological studies 10043-67-1 10045-86-0  
 10045-89-3 10049-04-4, Chlorine oxide (ClO<sub>2</sub>) 10058-23-8  
 10061-02-6 10101-39-0 10101-41-4 10101-50-5 10101-97-0  
 10102-90-6 10103-46-5 10103-48-7 10103-50-1 10108-64-2,  
 Cadmium chloride (CdCl<sub>2</sub>) 10112-91-1, Mercury chloride (Hg<sub>2</sub>Cl<sub>2</sub>)  
 10117-38-1 10124-36-4 10124-41-1 10124-43-3 10124-50-2  
 10124-65-9 10125-13-0 10137-74-3 10138-04-2 10213-78-2  
 10233-94-0 10248-55-2 10254-48-5 10257-54-2 10265-92-6  
 10279-57-9 10290-12-7 10294-66-3 10309-97-4 10311-84-9  
 10326-21-3 10326-24-6 10331-57-4 10361-16-7 10361-37-2, Barium  
 chloride (BaCl<sub>2</sub>), biological studies 10377-60-3 10380-28-6  
 10389-50-1 10402-15-0 10402-16-1 10453-86-8 10486-00-7  
 (methods and compns. for increasing efficacy of biol. active  
 ingredients such as antitumor agents)  
 II 20859-73-8, Aluminum phosphide (AlP) 20940-37-8 21087-64-9  
 21267-72-1 21351-39-3 21452-18-6 21540-35-2 21548-32-3

21564-17-0 21609-90-5 21645-51-2, Aluminum hydroxide (Al(OH)<sub>3</sub>),  
 biological studies 21652-27-7 21689-84-9 21725-46-2 21832-25-7  
 21908-53-2, Mercury oxide (HgO) 21921-96-0 21923-23-9  
 22205-45-4, Copper sulfide (Cu<sub>2</sub>S) 22212-55-1 22212-56-2  
 22221-10-9 22221-12-1 22221-14-3 22224-92-6 22232-15-1  
 22232-20-8 22232-26-4 22232-28-6 22248-79-9 22259-30-9  
 22323-45-1 22330-14-9 22439-40-3 22569-74-0 22781-23-3  
 22894-47-9 22898-01-7 22936-75-0 22936-86-3 23031-36-9  
 23103-98-2 23121-99-5 23135-22-0 23184-66-9 23214-92-8  
 23319-66-6, biological studies 23422-53-9 23505-41-1 23526-02-5  
 23560-59-0 23564-05-8 23564-06-9 23710-76-1 23947-60-6  
 23950-58-5 23950-58-5D, metabolites 24017-47-8 24124-25-2  
 24151-93-7 24307-26-4 24310-40-5 24310-41-6 24353-58-0  
 24353-61-5 24556-64-7 24556-65-8 24579-73-5 24691-76-7  
 24691-80-3 24927-67-1 24934-91-6 25013-16-5 25035-26-1  
 25059-78-3 25085-34-1 25086-29-7 25154-52-3 25155-30-0  
 25167-82-2 25167-83-3 25167-83-3D, alkylamine salt 25167-83-3D,  
 coco-amine salt 25168-06-3 25168-15-4 25168-26-7 25171-63-5  
 25182-03-0 25254-50-6 25311-71-1 25316-56-7 25322-20-7  
 25322-68-3D, C10-C14 alkyl ethers, phosphates 25322-68-3D, alkyl  
 ethers 25339-17-7, Isodecanol 25366-23-8 25402-06-6 25550-58-7  
 25567-55-9 25568-84-7 25606-41-1 25655-41-8 25671-46-9  
 25956-17-6 26002-80-2 26027-38-3 26062-79-3 26087-47-8  
 26129-32-8 26172-55-4 26248-24-8 26259-45-0 26264-05-1  
 26354-18-7 26389-78-6 26399-36-0 26419-73-8 26530-09-6  
 26530-20-1 26532-22-9 26532-23-0 26532-24-1 26532-25-2  
 26545-53-9 26617-87-8D, C10-18 alkyl derivs. 26617-87-8D, C12-15  
 alkyl derivs. 26617-87-8D, alkyl derivs. 26628-22-8, Sodium azide  
 (Na(N<sub>3</sub>)) 26648-01-1 26761-40-0 26836-07-7 26856-61-1  
 26896-20-8, Neodecanoic acid 26952-20-5 27041-82-3 27041-84-5  
 27176-87-0 27177-77-1 27193-28-8 27193-86-8 27236-65-3  
 27252-87-5 27253-29-8 27304-13-8 27306-78-1 27323-41-7  
 27386-64-7 27458-93-1, Isooctadecanol 27519-02-4 27541-88-4  
 27554-26-3 27605-76-1 27636-20-0D, acetalized 27668-52-6  
 27923-56-4 27954-37-6 27987-00-4 28079-04-1 28086-13-7  
 28159-98-0 28217-97-2 28249-77-6 28300-74-5 28382-15-2  
 28401-39-0 28434-00-6 28434-01-7 28558-32-9 28559-00-4  
 28675-11-8 28730-17-8 28772-56-7 28801-69-6 28805-78-9  
 28837-97-0 28855-27-8 28956-64-1 29012-39-3D, derivs.  
 29061-61-8 29082-74-4 29091-05-2 29091-21-2 29173-31-7  
 29232-93-7 29385-43-1 29450-57-5 29457-72-5 29672-19-3  
 29804-22-6 29868-16-4 29871-13-4 29932-85-2 29973-13-5  
 30043-49-3 30043-55-1 30087-47-9 30136-13-1 30143-22-7  
 30284-78-7 30304-30-4 30507-70-1 30525-89-4, Paraformaldehyde  
 30551-20-3, Dodecadienal 30560-19-1 30622-37-8 30820-22-5  
 30864-28-9 30894-16-7 30979-48-7 30981-48-7 31089-39-1  
 31218-83-4 31251-03-3 31291-59-5 31366-95-7 31366-97-9  
 31393-98-3 31441-78-8, Purinethiol 31502-19-9 31512-74-0  
 31632-68-5 31848-11-0 31895-21-3 31895-22-4 31972-43-7  
 31972-44-8 32289-58-0 32345-29-2 32357-46-3 32407-99-1  
 32426-10-1 32426-11-2 32534-66-0 32581-06-9 32771-64-5  
 32861-85-1 32889-48-8 33113-08-5 33189-72-9 33213-65-9  
 (methods and comps. for increasing efficacy of biol. active  
 ingredients such as antitumor agents)  
 IT 9002-88-4  
 (oxidized; methods and comps. for increasing efficacy of biol.  
 active ingredients such as antitumor agents)

DOCUMENT NUMBER: 141:244683  
 TITLE: Multilayer golf ball with translucent cover  
 INVENTOR(S): Morgan, William E.; Harris, Kevin M.; Ricci, Shawn  
 PATENT ASSIGNEE(S): Acushnet Company, USA  
 SOURCE: U.S. Pat. Appl. Publ., 35 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004176531	A1	20040909	US 2003-384422	20030307
US 6949595	B2	20050927	<--	
PRIORITY APPLN. INFO.:			US 2003-384422	20030307
			<--	

ED Entered STN: 10 Sep 2004

AB Title golf ball comprises a center, a cover, and, at least one intermediate layer disposed between the center and the cover, wherein the cover is formed from a substantially translucent composition comprising isocyanate and the intermediate layer is comprised of pigment. The cover is preferably formed from a polyurethane composition or a reaction product of isocyanate. The cover is further comprised at least one color stabilizer and/or an optical enhancer. Preferably, the intermediate layer contributes to the overall appearance of the ball and can contain pigment and/or optical brighteners.

IT 25608-26-8, Surlyn 8945  
 (Surlyn 7940-blends, inner cover layer; multilayer golf ball with translucent cover)

RN 25608-26-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethene, sodium salt (CA INDEX NAME)

CM 1

CRN 25053-53-6

CMF (C4 H6 O2 . C2 H4)x

CCI PMS

CM 2

CRN 79-41-4

CMF C4 H6 O2



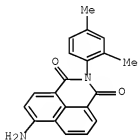
CM 3

CRN 74-85-1

CMF C2 H4



- IT 2478-20-6, Solvent Yellow 44  
(pigment, inner cover layer; multilayer golf ball with translucent cover)
- RN 2478-20-8 HCAPLUS
- CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
(CA INDEX NAME)



- IC ICM C08L075-04
- INCL 524590000
- CC 38-3 (Plastics Fabrication and Uses)
- IT Amines, uses  
(hindered, light stabilizer; multilayer golf ball with translucent cover)
- IT Polysiloxanes, uses  
(light stabilizer; multilayer golf ball with translucent cover)
- IT Fluorescent brighteners  
Golf balls  
Light stabilizers  
Translucent materials  
UV stabilizers  
(multilayer golf ball with translucent cover)
- IT Polyureas  
Polyurethanes, uses  
(polyoxyalkylene-, outer cover layer; multilayer golf ball with translucent cover)
- IT 25608-26-8, Surlyn 8945  
(Surlyn 7940-blends, inner cover layer; multilayer golf ball with translucent cover)
- IT 23328-53-2, Tinuvin 571 41556-26-7, Bis-(1,2,2,6,6-pentamethyl-4-piperidinyl)-sebacate 52829-07-9, Bis-(2,2,6,6-tetramethyl-4-piperidinyl)-sebacate 63843-89-0 65447-77-0, Dimethyl succinate-4-hydroxy-2,2,6,6-tetra-methyl-1-piperidine ethanol copolymer 79720-19-7, 3-Dodecyl-1-(2,2,6,6-tetramethyl-4-piperidyl)pyrrolidine-2,5-dione 122586-52-1, Bis-(1-octyloxy-2,2,6,6-tetramethyl-4-piperidinyl) sebacate 124172-53-8 164578-16-9, Methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silanediol homopolymer 164648-93-5  
(light stabilizer; multilayer golf ball with translucent cover)

IT 2478-26-8, Solvent Yellow 44  
(pigment, inner cover layer; multilayer golf ball with translucent cover)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:739934 HCAPLUS Full-text  
DOCUMENT NUMBER: 141:244673  
TITLE: Multilayer golf ball with translucent polyurethane cover  
INVENTOR(S): Morgan, William E.; Harris, Kevin M.; Ricci, Shawn  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 35 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004176185	A1	20040909	US 2003-384414	20030307
			<--	
US 2004180734	A1	20040916	US 2003-748209	20031231
			<--	
US 2004178534	A1	20040916	US 2003-748211	20031231
			<--	
PRIORITY APPLN. INFO.:			US 2003-384414	A2 20030307
			<--	

ED Entered STN: 10 Sep 2004

AB Title golf ball comprises a ball precursor and a substantially translucent cover comprising polyurethane and having greater than 80% of an outer surface thereof covered by dimples.

IT 25608-26-8, Surlyn 8945  
(Surlyn 7940-blends, inner cover layer; production of multilayer golf ball with translucent polyurethane cover)

RN 25608-26-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethene, sodium salt (CA INDEX NAME)

CM 1

CRN 25053-53-6

CMF (C4 H6 O2 . C2 H4)x

CCI PMS

CM 2

CRN 79-41-4

CMF C4 H6 O2



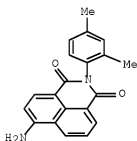
CM 3

CRN 74-85-1

CMF C2 H4



- IT 2478-20-8, Solvent Yellow 44  
(inner cover layer; production of multilayer golf ball with translucent polyurethane cover)
- RN 2478-20-8 HCAPLUS
- CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
(CA INDEX NAME)



- IC ICM A63B037-12  
ICS A63B037-14
- INCL 473371000; 473378000
- CC 38-3 (Plastics Fabrication and Uses)
- IT Amines, uses  
(hindered, light stabilizer; production of multilayer golf ball with translucent polyurethane cover)
- IT Polysiloxanes, uses  
(light stabilizer; production of multilayer golf ball with translucent polyurethane cover)
- IT Polyurethanes, uses  
(polyoxyalkylene-, outer cover layer; production of multilayer golf ball with translucent polyurethane cover)
- IT Golf balls  
Light stabilizers  
Translucent materials  
UV stabilizers  
(production of multilayer golf ball with translucent polyurethane cover)
- IT 25608-26-8, Surlyn 8945  
(Surlyn 7940-blends, inner cover layer; production of multilayer golf ball with translucent polyurethane cover)
- IT 41556-26-7, Tinuvin 765  
(UV stabilizers; production of multilayer golf ball with translucent polyurethane cover)
- IT 2478-20-8, Solvent Yellow 44

(inner cover layer; production of multilayer golf ball with translucent polyurethane cover)

IT 23328-53-2, Tinuvin 571 52829-07-9, Bis-(2,2,6,6-tetramethyl-4-piperidinyl)-sebacate 63843-89-0 65447-77-0, Dimethyl succinate-4-hydroxy-2,2,6,6-tetra-methyl-1-piperidine ethanol copolymer 79720-19-7, 3-Dodecyl-1-(2,2,6,6-tetramethyl-4-piperidylpyrrolidine-2,5-dione 122586-52-1, Bis-(1-octyloxy-2,2,6,6-tetramethyl-4-piperidinyl) sebacate 124172-53-8 164578-16-9, Methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silanediol homopolymer 164648-93-5 (light stabilizer; production of multilayer golf ball with translucent polyurethane cover)

L22 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:739933 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:244672  
 TITLE: Multilayer golf ball with translucent cover containing polyurea  
 INVENTOR(S): Morgan, William E.; Harris, Kevin M.; Ricci, Shawn USA  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 35 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004176184	A1	20040909	US 2003-384412	20030307
			<--	
US 2005148409	A1	20050707	US 2005-70574	20050302
			<--	
PRIORITY APPLN. INFO.:			US 2003-384412	A1 20030307
			<--	

ED Entered STN: 10 Sep 2004

AB Title golf ball comprises a ball precursor and a substantially translucent cover containing polyurea and having greater than 80% of an outer surface thereof covered by dimples. The golf ball includes a center, a translucent cover, and, optionally, at least one intermediate layer disposed between the center and the cover. The cover is preferably formed from a polyurethane composition or a reaction product of polyisocyanate. The cover is further comprised at least one color stabilizer and/or an optical enhancer. Preferably, the intermediate layer contributes to the overall appearance of the ball and can contain pigment and/or optical brighteners.

IT 25608-26-8, Surlyn 8945  
 (Surlyn 7940-blends, inner cover layer; production of multilayer golf ball with translucent cover containing polyurea)

RN 25608-26-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethene, sodium salt (CA INDEX NAME)

CM 1

CRN 25053-53-6

CMF (C4 H6 O2 . C2 H4)x

CCI PMS

CM 2



CRN 79-41-4  
CMF C4 H6 O2

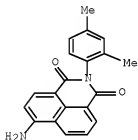


CM 3

CRN 74-85-1  
CMF C2 H4



IT 2478-20-8, Solvent Yellow 44  
(pigment, inner cover layer; production of multilayer golf ball with translucent cover containing polyurea)  
RN 2478-20-8 HCAPLUS  
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
(CA INDEX NAME)



IC ICM A63B037-12  
ICS A63B037-14  
INCL 473371000; 473378000  
CC 38-3 (Plastics Fabrication and Uses)  
IT Amines, uses  
(hindered, light stabilizer; production of multilayer golf ball with translucent cover containing polyurea)  
IT Polysiloxanes, uses  
(light stabilizer; production of multilayer golf ball with translucent cover containing polyurea)  
IT Fluorescent brighteners  
Golf balls  
Light stabilizers  
Translucent materials  
UV stabilizers  
(production of multilayer golf ball with translucent cover containing

- polyurea)  
 IT 25608-26-8, Surlyn 8945  
 (Surlyn 7940-blends, inner cover layer; production of multilayer golf ball with translucent cover containing polyurea)  
 IT 41556-26-7, Tinuvin 765 52829-07-9, Bis-(2,2,6,6-tetramethyl-4-piperidinyl)-sebacate 63843-89-0, n-Butyl-(3,5-di-tert-butyl-4-hydroxybenzyl) bis(1,2,2,6,6-pentamethyl-4-piperidinyl) malonate 65447-77-0, Dimethyl succinate-4-hydroxy-2,2,6,6-tetra-methyl-1-piperidine ethanol copolymer 79720-19-7, 3-Dodecyl-1-(2,2,6,6-tetramethyl-4-piperidylpyrrolidine-2,5-dione 122586-52-1, Bis-(1-octyloxy-2,2,6,6-tetramethyl-4-piperidinyl) sebacate 124172-53-8, N,N'-1,6-Hexanediylbis [N-(2,2,6,6-tetramethyl-4-piperidinyl)-formamide] 164578-16-9, Methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silanediol homopolymer 164648-93-5 (light stabilizer; production of multilayer golf ball with translucent cover containing polyurea)  
 IT 2478-20-8, Solvent Yellow 44  
 (pigment, inner cover layer; production of multilayer golf ball with translucent cover containing polyurea)

L22 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:852844 HCAPLUS Full-text

DOCUMENT NUMBER: 139:351843

TITLE: Liquid ink and recording apparatus

INVENTOR(S): Ushirogouchi, Toru; Tanuma, Chiaki; Ohtsu, Kazuhiko; Akiyama, Ryozi; Hiroki, Masashi; Endo, Yoshito

PATENT ASSIGNEE(S): Toshiba Tec Kabushiki Kaisha, Japan; Kabushiki Kaisha Toshiba

SOURCE: Eur. Pat. Appl., 75 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1357159	A2	20031029	EP 2003-9283	20030424
			<--	
EP 1357159	A3	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004002668	A	20040108	JP 2003-4862	20030110
			<--	
US 2003231234	A1	20031218	US 2003-420534	20030422
			<--	
US 6959986	B2	20051101		
CN 1453317	A	20031105	CN 2003-122927	20030424
			<--	
CN 1689810	A	20051102	CN 2005-10056237	20030424
			<--	
US 2005168556	A1	20050804	US 2005-95710	20050331
			<--	
US 7108367	B2	20060919		
US 2005168553	A1	20050804	US 2005-96162	20050331
			<--	
US 7125112	B2	20061024		
US 2006274136	A1	20061207	US 2006-502874	20060811
			<--	

PRIORITY APPLN. INFO.:	JP 2002-122864	A 20020424
	<--	
	JP 2003-4862	A 20030110
	<--	
	US 2003-420534	A3 20030422
	<--	
	CN 2003-122927	A3 20030424
	<--	
	US 2005-95710	A3 20050331

OTHER SOURCE(S): MARPAT 139:351843

ED Entered STN: 31 Oct 2003

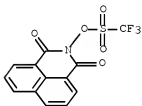
AB There is disclosed a liquid ink comprising a photo acid generating agent that generates an acid upon irradiation with light, a coloring component, and  $\geq 1$  solvent that is polymerized in the presence of an acid. It is preferable that (i) the amount of the photo acid generating agent contained in the liquid ink falls within a range of 1-10 parts relative to 100 parts of the solvent, (ii) the coloring component consists of a pigment, and (iii) the solvent contains  $\geq 50$  parts of an acid polymerizable compound, wherein the acid polymerizable compound polymerized in the presence of the acid has an alicyclic skeleton and/or an aliphatic skeleton having a viscosity of  $\leq 50$  mPa-s and a b.p. of  $\geq 150^\circ$  under room temperature and atmospheric pressure. Thus, an ink composition comprising an epoxy compound mixture, 5% carbon black, and 8% acid generating agent was used for an ink-jet printer, showing good pencil hardness and printing quality.

IT 85342-62-7

(polymerization catalyst; liquid inks with good pencil hardness and printing quality)

RN 85342-62-7 HCAPLUS

CN Methanesulfonic acid, 1,1,1-trifluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)

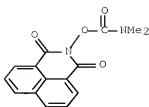


IT 616885-13-3

(viscosity stabilizer; liquid inks with good pencil hardness and printing quality)

RN 616885-13-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[dimethylamino]carbonyl]oxy]- (9CI) (CA INDEX NAME)



- IC ICM C09D011-00  
ICS C08G065-10; C08G065-18; C08G065-14; C09D011-10; B41J002-435;  
C08G059-18
- CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74, 77
- IT Polyesters, uses  
(epoxy, crosslinked; liquid inks with good pencil hardness and  
printing quality)
- IT Polyesters, uses  
(epoxy-polyether-, crosslinked; liquid inks with good pencil hardness  
and printing quality)
- IT Amines, uses  
(tertiary, viscosity stabilizers; liquid inks with good  
pencil hardness and printing quality)
- IT Quaternary ammonium compounds, uses  
(viscosity stabilizers; liquid inks with good pencil  
hardness and printing quality)
- IT 74227-35-3, Bis[4-(diphenylsulfonio)phenyl] sulfide  
bis(hexafluorophosphate) 75482-18-7 85342-62-7  
156360-76-8 362594-75-0, Uvacure 1591  
(polymerization catalyst; liquid inks with good pencil hardness and  
printing  
quality)
- IT 62-53-3, Aniline, uses 100-37-8 121-69-7, N,N-  
Dimethylaminobenzene, uses 10581-12-1, Tetramethylammonium acetate  
616885-13-3 616885-14-4 616885-15-5  
(viscosity stabilizer; liquid inks with good pencil  
hardness and printing quality)

L22 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:771723 HCAPLUS Full-text  
DOCUMENT NUMBER: 139:299251  
TITLE: Heat-developable imaging materials with good image  
stability, their packaging materials, and  
image formation using them  
INVENTOR(S): Takeyama, Toshihsa  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 2003280184	A	20031002	JP 2002-82917	20020325
			<--	

PRIORITY APPLN. INFO.:

JP 2002-82917

20020325

&lt;--

ED Entered STN: 02 Oct 2003

AB The imaging material contains a image formation layer containing (A) nonphotosensitive organic Ag salts, (B) reducing agents, (C) ethylenically unsatd. polymerizable compds. or epoxy-containing polymerizable compds., and (D) photopolymn. initiators. The polymerizable compds. are preferably contained in heat-sensitive microcapsules. The image formation layer may further contain photog. Ag halides. The imaging materials are packaged by light-shielding and gas-barrier materials. The images are formed by (A) imagewise heating followed by irradiating or alternatively, (B) imagewise exposing, heating under light-shielded conditions, and irradiating.

IT 9905-09-8, Denka Vinyl 1000C

(coating containing, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)

RN 9005-09-8 HCAPLUS

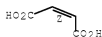
CN 2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl acetate (CA INDEX NAME)

CM 1

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



CM 2

CRN 108-05-4

CMF C4 H6 O2



CM 3

CRN 75-01-4

CMF C2 H3 Cl



IT 25067-34-9, Soarnol 30L

(gas-barrier coating, packaging with; heat-developable imaging

materials having photolithog. compds. for stabilizing  
images)

RN 25067-34-9 HCAPLUS  
CN Ethanol, polymer with ethene (CA INDEX NAME)

CM 1

CRN 557-75-5  
CMF C2 H4 O



CM 2

CRN 74-85-1  
CMF C2 H4



IT 9003-07-0, Polypropylene  
(lamine, packaging with, Cenassy C 153-40, Pylen OT-P 2165;  
heat-developable imaging materials having photolithog. compds. for  
stabilizing images)

RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1  
CMF C3 H6



IT 9002-88-4, LDPE  
(lamine, packaging with; heat-developable imaging materials  
having photolithog. compds. for stabilizing images)

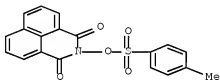
RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1  
CMF C2 H4



IT 5551-72-4  
 (photoacid generator; heat-developable imaging materials having  
 photolithog. compds. for stabilizing images)  
 RN 5551-72-4 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[4-  
 methylphenyl)sulfonyl]oxy]- (CA INDEX NAME)



IC ICM G03F007-004  
 ICS B41M005-30; G03C001-498; G03C001-76; G03C003-00; G03C005-08;  
 G03F007-11; G03F007-26; G03F007-38  
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other  
 Reprographic Processes)  
 Section cross-reference(s): 38  
 ST heat developable imaging photolithog image fixing; photog thermog  
 epoxy photolithog image stability; thermal printing sheet  
 gas barrier packaging  
 IT Packaging materials  
 (films, gas-impermeable, multilayer; heat-developable imaging  
 materials having photolithog. compds. for stabilizing  
 images)  
 IT Thermal printing  
 (heat-developable imaging materials having photolithog. compds. for  
 stabilizing images)  
 IT Polyurethanes, uses  
 (heat-developable imaging materials having photolithog. compds. for  
 stabilizing images)  
 IT Photographic films  
 (heat-developable; heat-developable imaging materials having  
 photolithog. compds. for stabilizing images)  
 IT Photography  
 (heat-developing; heat-developable imaging materials having  
 photolithog. compds. for stabilizing images)  
 IT Microcapsules  
 (heat-sensitive, photopolymerizable compds. containing;  
 heat-developable imaging materials having photolithog. compds. for  
 stabilizing images)  
 IT Epoxy resins, uses  
 (image formation layer containing; heat-developable imaging materials  
 having photolithog. compds. for stabilizing images)  
 IT Carbon black, uses  
 (laminate containing, packaging with; heat-developable imaging  
 materials having photolithog. compds. for stabilizing  
 images)

- IT Polyesters, uses  
(laminates, packaging with, Toyobo Ester Film E 5100, Lumirror T 60;  
heat-developable imaging materials having photolithog. compds. for  
stabilizing images)
- IT Aminoplasts  
(microcapsule; heat-developable imaging materials having  
photolithog. compds. for stabilizing images)
- IT Light shields  
(packaging material; heat-developable imaging materials having  
photolithog. compds. for stabilizing images)
- IT Paper  
(packaging with; heat-developable imaging materials having  
photolithog. compds. for stabilizing images)
- IT Polyesters, uses  
(packaging with; heat-developable imaging materials having  
photolithog. compds. for stabilizing images)
- IT Cycloalkenes  
(polymers, laminates, Apel, packaging with; heat-developable imaging  
materials having photolithog. compds. for stabilizing  
images)
- IT Thermal printing materials  
(sheets; heat-developable imaging materials having photolithog.  
compds. for stabilizing images)
- IT Photolithography  
(stabilizing images by; heat-developable imaging  
materials having photolithog. compds. for stabilizing  
images)
- IT 24293-30-9 246246-21-9 300822-65-5 607708-87-2 607708-88-3  
607708-89-4 607708-90-7 607708-91-8  
(acid generator; heat-developable imaging materials having  
photolithog. compds. for stabilizing images)
- IT 9095-09-8, Denka Vinyl 1000C 29294-36-8, Nylon 300  
39278-79-0, Corionate L  
(coating containing, packaging with; heat-developable imaging materials  
having photolithog. compds. for stabilizing images)
- IT 25067-34-9, Soarnol 30L 25249-59-6, Saran F 216  
(gas-barrier coating, packaging with; heat-developable imaging  
materials having photolithog. compds. for stabilizing  
images)
- IT 92899-80-4P 101232-56-8P 142114-14-5P, Dipentaerythritol  
pentaacrylate-trimethylolpropane triacrylate copolymer 607708-92-9P  
607708-93-0P  
(image formation layer containing; heat-developable imaging materials  
having photolithog. compds. for stabilizing images)
- IT 3253-39-2, Bisphenol A dimethacrylate 15625-89-5, Trimethylolpropane  
triacylate 16969-10-1, Phenyl glycidyl ether acrylate 29570-58-9,  
Dipentaerythritol hexaacrylate 40220-08-4, Aronix M 315  
60506-81-2, Dipentaerythritol pentaacrylate 67006-39-7, Newfrontier  
BR 42M 97666-48-3, Epo Tohto YDCN 701  
(image formation layer containing; heat-developable imaging materials  
having photolithog. compds. for stabilizing images)
- IT 13463-67-7, Titania, uses  
(laminates containing, packaging with; heat-developable imaging  
materials having photolithog. compds. for stabilizing  
images)
- IT 9093-07-0, Polypropylene  
(laminates, packaging with, Cenesty C 153-40, Pylen OT-P 2165;  
heat-developable imaging materials having photolithog. compds. for  
stabilizing images)
- IT 25038-59-9, PET polymer, uses



(laminate, packaging with, Toyobo Ester Film E 5100, Lumirror T 60; heat-developable imaging materials having photolithog. compds. for stabilizing images)

- IT 7429-90-5, Aluminum, uses 9002-88-4, LDPE 200513-67-3, E 7075  
(laminate, packaging with; heat-developable imaging materials having photolithog. compds. for stabilizing images)
- IT 9003-08-1P, Formaldehyde-melamine copolymer (microcapsule; heat-developable imaging materials having photolithog. compds. for stabilizing images)
- IT 37337-02-3, Takenate D 110N 104782-64-1, Takenate D 204EA (microcapsule; heat-developable imaging materials having photolithog. compds. for stabilizing images)
- IT 5551-72-4 6293-66-9, Diphenyliodonium p-toluenesulfonate 41580-58-9 82424-53-1 110928-18-2 380848-50-0  
(photoacid generator; heat-developable imaging materials having photolithog. compds. for stabilizing images)

L22 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:734999 HCAPLUS Full-text

DOCUMENT NUMBER: 137:353644

TITLE: Fluorescent polymer made from chemical

modification of poly(styrene-co-maleic anhydride)

AUTHOR(S): Wang, Kangcheng; Huang, Wei; Xia, Ping; Gao, Chao; Yan, Deyue

CORPORATE SOURCE: School of Chemistry and Chemical Technology, Shanghai Jiao Tong University, Shanghai, 200240, Peop. Rep. China

SOURCE: Reactive & Functional Polymers (2002), 52(3), 143-148

CODEN: RFP0F6; ISSN: 1381-5148

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

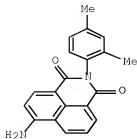
ED Entered STN: 27 Sep 2002

AB Poly(styrene-co-maleic anhydride) (SMA) was modified by com. available fluorescent dye, 4-amino-N-(2,4-dimethylphenyl)-1,8-naphthalimide, to prepare fluorescent poly(styrene-co-maleimide) (SMI). FT-IR, UV-Vis and fluorescent spectra of this polymer were investigated. The polymer can emit strong yellow-green fluorescence (around 510 nm) and its thermal stability and solubility were improved. The number-averaged mol. weight (Mn) measured by GPC was about  $1.8 \times 10^5$  relative to the polystyrene standard and the mol. weight distribution was 1.86. The glass transition temperature (Tg) determined by differential scanning calorimeter (DSC) was 150.8°, and 17° higher than the Tg (133.7°) of SMA. The influences of solvent, concentration, and quencher on the fluorescent behaviors of SMI are discussed too.

IT 2478-20-8DP, reaction product with maleic anhydride-styrene copolymer 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction product with amino(dimethylphenyl)naphthalimide (fluorescence of chemical modified poly(styrene-co-maleic anhydride))

RN 2478-20-8 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-(CA INDEX NAME)



RN 9011-13-6 HCAPLUS  
 CN 2,5-Furandione, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 108-31-6  
 CMF C4 H2 O3



CM 2

CRN 100-42-5  
 CMF C8 H8



CC 36-5 (Physical Properties of Synthetic High Polymers)  
 Section cross-reference(s): 73  
 IT 2479-26-8DP, reaction product with maleic anhydride-styrene  
 copolymer 9011-13-6DP, Maleic anhydride-styrene copolymer,  
 reaction product with amino(dimethylphenyl)naphthalimide  
 (fluorescence of chemical modified poly(styrene-co-maleic anhydride))  
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L22 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:554517 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 137:263731  
 TITLE: Colored microporous polyethylene films: effect of  
 porous structure on dye adsorption  
 AUTHOR(S): Grabchev, Ivo; Moneva, Ivanka; Betcheva, Rositza;  
 Elyashevich, Galina  
 CORPORATE SOURCE: Institute of Polymers, Bulgarian Academy of  
 Sciences, Sofia, 1113, Bulg.

SOURCE: Materials Research Innovations (2002),  
6(1), 34-37  
CODEN: MRINRV; ISSN: 1432-8917  
PUBLISHER: Springer-Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
ED Entered STN: 26 Jul 2002

AB Microporous polyethylene (PE) films with good mech. properties have been produced by high-speed extrusion from the melt followed by annealing, uniaxial stretching and thermal fixation. The films have pores of 0.15-0.45  $\mu\text{m}$  size and relief on the scale of 1-2  $\mu\text{m}$ . Coloration of the films with fluorescent dyes, 3-amino-benzanthrone and derivs. of 1,8-naphthalimide, was performed at the room temperature. The quantity of adsorbed dye depends upon the spin draw ratio of PE membranes and has an influence upon their color shade. The color effect is not observed in the case of only extruded or annealed PE films treated in the same way. The enhanced adhesion of the dyes on porous films is related to their high surface area. Specifically, the interactions between dye and polymer at pore walls provide color stability of the microporous films. The effect of relevant properties of both PE membranes (pores relief and lamellar thickness) and dye mols. (aspect ratio and cohesion) is discussed.

IT 9002-88-4, Polyethylene 151136-29-7,  
1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(amino)-2-(2-propenyl)-  
160543-34-0, 1H-Benz[de]isoquinoline-1,3(2H)-dione,  
6-(methylamino)-2-(2-propenyl)- 160543-36-2,  
1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(dimethylamino)-2-(2-propenyl)-  
(effect of porous structure on dye adsorption in colored  
microporous polyethylene films)

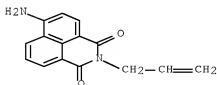
RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1  
CMF C2 H4

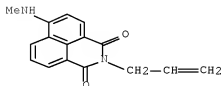


RN 151136-29-7 HCAPLUS  
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2-propenyl)- (9CI)  
(CA INDEX NAME)



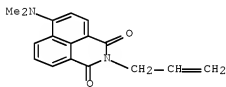
RN 160543-34-0 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(methylamino)-2-(2-propenyl)-  
(9CI) (CA INDEX NAME)



RN 160543-36-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(dimethylamino)-2-(2-propenyl)- (9CI) (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)

IT 9902-88-4, Polyethylene 13456-80-9 151136-29-7,  
1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(amino)-2-(2-propenyl)-  
160543-34-0, 1H-Benz[de]isoquinoline-1,3(2H)-dione,  
6-(methylamino)-2-(2-propenyl)- 160543-36-2,  
1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(dimethylamino)-2-(2-propenyl)-

(effect of porous structure on dye adsorption in colored  
microporous polyethylene films)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L22 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:532043 HCAPLUS Full-text

DOCUMENT NUMBER: 137:233040

TITLE: Chemical modification of poly(styrene-co-maleic  
anhydride) by some fluorescent organic molecules  
AUTHOR(S): Xia, Ping; Huang, Wei; Wang, Kangcheng; Gao, Chao;  
Yan, Deyue

CORPORATE SOURCE: College of Chemistry and Chemical Technology,  
Shanghai Jiao Tong University, Shanghai, 200240,  
Peop. Rep. China

SOURCE: Gaofenzi Xuebao (2002), (3), 385-388

CODEN: GAXUE9; ISSN: 1000-3304

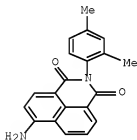
PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

ED Entered STN: 17 Jul 2002

- AB The poly (styrene-co-maleic anhydride) (SMA) was modified by some fluorescent organic moles. such as 2-amino-benzimidazol, 4-amino-antipyrine and 4-amino-N-(2,4-dimethylphenyl)-1,8- naphthalimide to prepare the fluorescent polymers (SMI). The FT-IR spectra of these polymers show a new carbonyl characteristic peak in imide ring appeared at 1722 cm<sup>-1</sup> and no amino group characteristic peaks appeared at 3300-3500 cm<sup>-1</sup>. That is to say the chemical modification of SMA is successful. GPC and DSC results of the polymers obtained show that although the mol. weight of these polymers decreased a little in the chemical modification process, the thermal stability of these polymers was improved. On the other hand the fluorescence of these polymers can be quenched by the acidity because of the alkalescence of the organic hetero-ring containing nitrogen. These novel polymers can emit strong fluorescence and kept the excellent properties of SMA too. This is a convenient method to produce the fluorescent materials.
- IT 2478-20-8F 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with fluorescent heterocyclic compds. (modification of poly(styrene-co-maleic anhydride) by fluorescent organic moles.)
- RN 2478-20-8 HCAPLUS
- CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)- (CA INDEX NAME)



- RN 9011-13-6 HCAPLUS
- CN 2,5-Furandione, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 108-31-6

CMF C4 H2 O3



CM 2

CRN 100-42-5

CMF C8 H8

H<sub>2</sub>C=CH-Ph

CC 35-8 (Chemistry of Synthetic High Polymers)  
 IT 83-07-8DP, reaction products with maleic anhydride-styrene copolymer 934-32-7DP, 1H-Benzimidazol-2-amine, reaction products with maleic anhydride-styrene copolymer 2478-20-6F 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with fluorescent heterocyclic compds.  
 (modification of poly(styrene-co-maleic anhydride) by fluorescent organic mols.)

L22 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:211850 HCAPLUS Full-text  
 DOCUMENT NUMBER: 136:217658  
 TITLE: Composition for coloring polymeric materials in bulk  
 INVENTOR(S): Shershukov, V. M.; Demin, N. Ya.  
 PATENT ASSIGNEE(S): Ukraine  
 SOURCE: Russ., No pp. given  
 CODEN: RUXXE7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Russian  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2150482	C1	20000610	RU 1999-103853	19990304
			<--	
PRIORITY APPLN. INFO.:			RU 1999-103853	19990304
			<--	

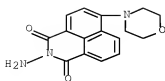
ED Entered STN: 21 Mar 2002

AB The invention discloses a composition for coloring polymeric materials in bulk comprising weight%: colorant containing active carboxy, amino, hydrazo, sulfonylamino or hydroxyethyl groups or mixture of colorants, 2.0-8.0; anticoagulating additive such as metal oxide or stearate, finely ground silica, clay or mixture thereof, 25.0-32.0; polyhedral alc., 16.0-18.0; organosilicon modifier, preferably di- or tetraethoxysiloxane, 16.0-18.0; polyethylene wax, 5.0-6.0; aliphatic or aromatic polycarboxylic acid anhydride, the balance up to 100%. The composition has increased thermal, anticaking, and hydrolytic stability, considerably improved coloring properties, and a wider range of polymeric materials being colored. The composition is useful for coloring not only polyolefins and plasticized polyvinyl chloride, but also polystyrene, copolymers thereof, and polyamides.

IT 51897-30-4 129277-16-3 281212-12-3  
 (composition for coloring polymeric materials in bulk)

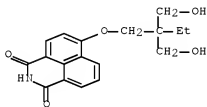
RN 51897-30-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-amino-6-(4-morpholinyl)- (CA INDEX NAME)



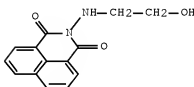
RN 129277-16-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-[(2,2-bis(hydroxymethyl)butoxy]- (CA INDEX NAME)



RN 281212-12-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(2-hydroxyethyl)amino]- (CA INDEX NAME)



IT 9002-88-4

(composition for coloring polymeric materials in bulk)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IT 9003-53-6, Polystyrene

(composition for coloring polymeric materials in bulk)  
 RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5  
 CME C8 H8



IC ICM C09K011-07  
 ICS C09B067-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT 56-81-5, Glycerol, uses 81-88-9, Rhodamine S 85-44-9, Phthalic anhydride 108-31-6, Maleic anhydride, uses 115-77-5, Pentaerythritol, uses 552-30-7, Trimellitic anhydride 998-30-1, Triethoxysilane 7325-85-1, Rhodamine 6Zh 18586-54-4 19223-63-3  
 20871-03-8 51897-30-4 70378-63-1, Reactive Turquoise 129277-16-3 152076-83-0 160251-78-5 281212-12-2  
 402725-94-4, Pigment Lightfast Yellow 3T  
 (composition for coloring polymeric materials in bulk)  
 IT 9002-86-4  
 (composition for coloring polymeric materials in bulk)  
 IT 9003-53-6, Polystyrene  
 (composition for coloring polymeric materials in bulk)

L22 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:629137 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 136:7701

TITLE: Effect of polymer matrix on photo-stability of photo-luminescent dyes in multi-layer polymeric structures

AUTHOR(S): Baumberg, I.; Berezin, O.; Drabkin, A.; Gorelik, B.; Kogan, L.; Voskoboynik, M.; Zaidman, M.

CORPORATE SOURCE: ELAM Ltd, Jerusalem, 91450, Israel

SOURCE: Polymer Degradation and Stability (2001), 73(3), 403-410

CODEN: PDSTDW; ISSN: 0141-3910

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Aug 2001

AB The present study considers the photo-stability of luminescent dyes in multi-layer coatings made of various polymers [low-d. polyethylene (LDPE), poly(vinyl chloride) (PVC) and poly(vinylidene fluoride) (PVDF)]. Dye stability is shown to depend on both the chemical structure of the colorant and the photo-stability of the polymer matrix. The influence of colorant self absorption on its photo-stability is shown. This effect was used to increase dye lightfastness in multi-layer coatings. In the case of a colored PVC intermediate layer covered by an upper PVDF layer it is possible either to decrease or to increase lightfastness depending on the presence of UV-absorbers in the upper layer and its thickness and flexibility. Use of blends of PVDF based polymers with colored PMMA substantially improves photo-stability of dyes compared to colorants introduced into pure PVDF.

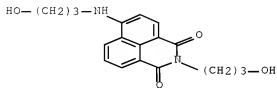
IT 52821-24-6



(effect of polymer matrix on photostability of photoluminescent dyes in multi-layer polymeric structures)

RN 52821-24-6 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(3-hydroxypropyl)-6-[(3-hydroxypropyl)amino]- (CA INDEX NAME)



IT 9002-88-4, LDPE

(low-d., coatings; effect of polymer matrix on photostability of photoluminescent dyes in multi-layer polymeric structures)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



CC 42-13 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 73

IT Stability

(photo-; effect of polymer matrix on photostability of photoluminescent dyes in multi-layer polymeric structures)

IT 82-38-2, Macrolex Red G 25152-49-2, Rhodamine 575 35773-43-4

47724-48-1, Rhodamine 590 52821-24-6 79920-55-1, Day-Glo

Potomac Yellow 838 100443-95-6 123174-58-3 151486-56-5

181658-76-4, Lumogen F Red 240 223744-26-1, Day-Glo Orange 315

(effect of polymer matrix on photostability of photoluminescent dyes in multi-layer polymeric structures)

IT 9002-88-4, LDPE

(low-d., coatings; effect of polymer matrix on photostability of photoluminescent dyes in multi-layer polymeric structures)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:495334 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 135:99836

TITLE: Chemical amplification-type resists for ≤0.15-μm design rules

INVENTOR(S): Yamana, Shinji

PATENT ASSIGNEE(S): NEC Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001188344	A	20010710	JP 1999-372657	19991228
			<--	
JP 3353885	B2	20021203		
US 2001009749	A1	20010726	US 2000-745469	20001226
			<--	
US 6566036	B2	20030520		
PRIORITY APPLN. INFO.:			JP 1999-372657	A 19991228
			<--	

ED Entered STN: 10 Jul 2001

AB The resists are obtained by dissolving (A) 10-20 weight% (for total compns.) 1-ethoxyethyl-protected 4-hydroxystyrene base polymers with mol. weight 5000-20,000, (B) 1-15 weight% (for A) acid generators, and (C) 0.5-6.0 weight% (for A) polystyrene fillers with mol. weight 150-20,000 in solvents. The resists show good dimension- and shape-controlling properties.

IT 9003-53-6, Polystyrene  
 (fillers; chemical amplification-type resists containing ethoxyethyl-protected hydroxystyrene polymers for  $\leq 0.15\text{-}\mu\text{m}$  design rules)

RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8

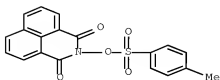


IT 5551-72-4 83697-53-4 85342-62-7  
 348628-75-1

(photoacid generators; chemical amplification-type resists containing ethoxyethyl-protected hydroxystyrene polymers for  $\leq 0.15\text{-}\mu\text{m}$  design rules)

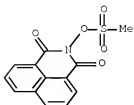
RN 5551-72-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[[[(4-methylphenyl)sulfonyl]oxy]- (CA INDEX NAME)



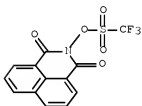
RN 83697-53-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(methylsulfonyl)oxy]- (CA INDEX NAME)



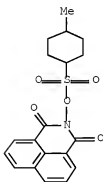
RN 85342-62-7 HCAPLUS

CN Methanesulfonic acid, 1,1,1-trifluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



RN 348628-75-1 HCAPLUS

CN Cyclohexanesulfonic acid, 4-methyl-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



IC ICM G03F007-039

ICS G03F007-004; G03F007-38; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

## Reprographic Processes)

Section cross-reference(s): 38

ST chem amplified photoresist hydroxystyrene polymer dimensional stability; polystyrene far UV photoresist dimensional stability; ethoxyethyl protected hydroxystyrene polymer photoresist

IT 9003-53-6, Polystyrene

(fillers; chemical amplification-type resists containing ethoxyethyl-protected hydroxystyrene polymers for  $\leq 0.15\text{-}\mu\text{m}$  design rules)

IT 5551-72-4 6293-66-9, Diphenyliodonium p-toluenesulfonate  
13891-29-7, Triphenylsulfonium p-toluenesulfonate 41580-58-9  
56530-39-3 57212-70-1 66003-76-7, Diphenyliodonium  
trifluoromethanesulfonate 66003-78-9, Triphenylsulfonium  
trifluoromethanesulfonate 83637-53-4 85342-62-7  
201358-23-8 231955-29-6 348628-72-8 348628-73-9 348628-74-0  
348628-75-1

(photoacid generators; chemical amplification-type resists containing ethoxyethyl-protected hydroxystyrene polymers for  $\leq 0.15\text{-}\mu\text{m}$  design rules)

L22 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:481933 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 135:78279

TITLE: Cationically polymerizable low-viscosity compositions containing polyorthoesters and epoxy compounds, and formation of coating films by radiation or heat

INVENTOR(S): Seko, Kenji; Isaka, Hisashi

PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001181498	A	20010703	JP 1999-365871	19991224
			<--	
PRIORITY APPLN. INFO.:			JP 1999-365871	19991224
			<--	

ED Entered STN: 05 Jul 2001

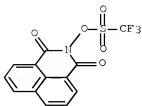
AB Title compns., which show good storage stability, good compatibility, and high solid concentration, contain (A) polyorthoesters manufactured by reacting RIC(OR2)3 (R1 = H, C1-4 alkyl; R2 = C1-4 alkyl; R2 may be different from one another) with  $\alpha$ -glycols and/or  $\beta$ -glycols and other polyols, (B) epoxy compds., and (C) photosensitive acid generators. Thus, a clear solution containing 640:424:136 2-butyl-2-ethyl-1,3-propanediol-Me orthoformate- pentaerythritol copolymer, 720:960:720 2-ethylhexyl acrylate-glycidyl methacrylate-styrene copolymer, and DAICAT 11 (sulfonium salt-type photosensitive acid generator) was applied on a tin plate, dried, irradiated with a high-pressure Hg lamp, and heated at 140° for 3 min to give a solvent-resistant coating with gel fraction 90%.

IT 85342-62-7, NAI 105

(photosensitive acid generator; cationically polymerizable low-viscosity coating compns. containing polyorthoesters and epoxy compds.)

RN 85342-62-7 HCAPLUS

CN Methanesulfonic acid, 1,1,1-trifluoro-, 1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl ester (CA INDEX NAME)



IC ICM C08L071-00

ICS C08K005-1515; C09D005-00; C09D171-00

CC 42-7 (Coatings, Inks, and Related Products)

IT Polyesters, uses

(epoxy-polyether-; cationically polymerizable low-viscosity coating compns. containing polyorthoesters and epoxy compds.)

IT Epoxy resins, uses

Polyesters, uses

(polyether-; cationically polymerizable low-viscosity coating compns. containing polyorthoesters and epoxy compds.)

IT 75482-18-7, DAICAT 11 85342-62-7, NAI 105

(photosensitive acid generator; cationically polymerizable low-viscosity coating compns. containing polyorthoesters and epoxy compds.)

L22 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:894365 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 134:178873

TITLE: Combinatorial testing of supported catalysts for the heterogeneous polymerization of olefins

AUTHOR(S): Stork, Martin; Herrmann, Andreas; Nemnich, Tanja; Klapper, Markus; Mullen, Klaus

CORPORATE SOURCE: Max-Planck-Institut fur Polymerforschung, Mainz, 55128, Germany

SOURCE: Angewandte Chemie, International Edition ( 2000), 39(23), 4367-4369

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Dec 2000

AB Fluorescent probe-tagged catalyst systems were used for testing and direct comparison of silica supported heterogeneous catalysts for industrial olefin polymns. (ethylene-hexene). The truly combinatorial approach starts with tagging of supports with perylene fluorescent dyes, then mixing all catalysts into a single polymerization vessel containing the olefin monomer. The dyes used are perylene dyes, e.g., perylenemonoimide, benzanthranyl-naphthaleneimide, etc., which have high chemical stability, high tendency to adsorb on silica, and high fluorescence quantum yield; the dyes do not interfere with polymerization. The metallocene catalysts used are dimethylsilylbis(2-methylbenzindenyl)zirconium dichloride, bis(n-butylcyclopentadienyl)zirconium dichloride, and ethylene-bis(indenyl)zirconium dichloride, supported on silica and activated with MAO.

During the olefin polymerization, each catalyst particle forms only one product granule through a particle growth process and can be considered as a microreactor. The different fluorescence of the dyes allows an exact assignment of the polymer granules resulting from each catalyst. The polymers obtained have the same properties as those obtained via a single catalyst route. The combinatorial approach can be implemented in conventional polymer synthesis and anal. facilities and catalyst sets can be enlarged because a wide variety of perylene dyes is available. The rapid testing method for supported metallocene catalysts under identical exptl. conditions is suitable for other heterogeneous polymerization processes. To create larger libraries of heterogeneous catalysts, online detection and characterization methods for polymer particles are required.

IT 25213-02-9P, Ethylene-hexene copolymer  
 (combinatorial method and library using fluorescence probes in rapid testing of zirconocene/silica catalysts for heterogeneous polymerization of olefins)  
 RN 25213-02-9 HCAPLUS  
 CN 1-Hexene, polymer with ethene (CA INDEX NAME)

CM 1

CRN 592-41-6  
 CMF C6 H12

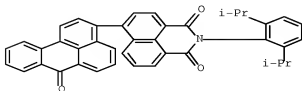


CM 2

CRN 74-85-1  
 CMF C2 H4



IT 189440-73-1  
 (fluorescent probe; combinatorial method and library using fluorescence probes in rapid testing of zirconocene/silica catalysts for heterogeneous polymerization of olefins)  
 RN 189440-73-1 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2,6-bis(1-methylethyl)phenyl]-6-(7-oxo-7H-benz[de]anthracen-3-yl)- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 67  
 IT 25213-92-9F, Ethylene-hexene copolymer  
 (combinatorial method and library using fluorescence probes in rapid testing of zirconocene/silica catalysts for heterogeneous polymerization of olefins)  
 IT 165550-61-8 189440-73-1  
 (fluorescent probe; combinatorial method and library using fluorescence probes in rapid testing of zirconocene/silica catalysts for heterogeneous polymerization of olefins)  
 REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:548867 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 133:178081  
 TITLE: Light-resistant fireproofing styrene resin compositions  
 INVENTOR(S): Xiao, Hongyang; Shi, Mingcheng; An, Benxue  
 PATENT ASSIGNEE(S): Qimei Industrial Co., Ltd., Peop. Rep. China  
 SOURCE: Faming Zhuanli Shengqing Gongkai Shuomingshu, 15 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1239112	A	19991222	CN 1998-102517	19980617
			<--	
PRIORITY APPLN. INFO.:			CN 1998-102517	19980617
			<--	

ED Entered STN: 11 Aug 2000

AB The resin composition is composed of rubber-modified styrene type resin 100, incombustible organic matter 0.5-30, yellow dye or pigment (I) 0.000 5-1.2, organic dye or pigment (II) 0.000 05-1.2, UV absorbent and/or hindered amine-type photostabilizer 0-3, and inorg. filler 0.01-10 part. The incombustible organic matter is halo-containing organo-P compound, halogenated epoxide, phthalimide halide derivative, triazine halide derivative, tetrabromobisphenol or its derivative, indane halide derivative, and halogenated aliphatic compound. The yellow dye or pigment (I) is decolorized after exposure on sunlight, and is naphthalic imides, mono methines, phthalquinones, perylenes, perinones, anthraquinone, and/or monoazos dye, etc. The organic dye or pigment (II) is the complementary color of the yellow dye or pigment (I), and the difference of maximal absorption wavelength between dye or pigment (II) and (I) is 100- 350 nm. The UV absorbent is benzotriazoles, benzophenones, salicylates, and/or acrylic cyanides.

IT 9002-88-4, Polyethylene  
 (R 680; light-resistant fireproofing styrene resin compns.)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1  
CMF C2 H4

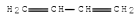


IT 9003-17-2  
(butadiene rubber, light-resistant fireproofing styrene resin compns.)

RN 9003-17-2 HCAPLUS  
CN 1,3-Butadiene, homopolymer (CA INDEX NAME)

CM 1

CRN 106-99-0  
CMF C4 H6



IT 9003-56-9  
(light-resistant fireproofing styrene resin compns.)

RN 9003-56-9 HCAPLUS  
CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA INDEX NAME)

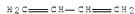
CM 1

CRN 107-13-1  
CMF C3 H3 N



CM 2

CRN 106-99-0  
CMF C4 H6



CM 3

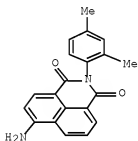
CRN 100-42-5



CMF C8 H8



IT 2478-20-8, Diaresin Yellow 6G  
 (pigment; light-resistant fireproofing styrene resin compns.)  
 RN 2478-20-8 HCAPLUS  
 CN 1H-Benz[de]isquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
 (CA INDEX NAME)



IT 9003-53-6, Polystyrene  
 (polybutadiene-modified; light-resistant fireproofing styrene resin  
 compns.)  
 RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



IC ICM C08L025-06  
 ICS C08K005-3475  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT Amines, uses  
 (hindered, light stabilizer; light-resistant fireproofing  
 styrene resin compns.)  
 IT Azo dyes  
 Dyes  
 Fire-resistant materials  
 Light stabilizers  
 Pigments, nonbiological  
 UV stabilizers  
 (light-resistant fireproofing styrene resin compns.)  
 IT 9002-83-4, Polyethylene 13463-67-7, R 680, uses

- (R 680; light-resistant fireproofing styrene resin compns.)
- IT 5003-17-2  
(butadiene rubber, light-resistant fireproofing styrene resin compns.)
- IT 2440-22-4, Tinuvin p 52829-07-9, LS 770  
(light stabilizer; light-resistant fireproofing styrene resin compns.)
- IT 5003-56-9  
(light-resistant fireproofing styrene resin compns.)
- IT 2478-20-8, Diaresin Yellow 6G 4118-16-5, Kayaset Yellow E AR 75216-43-2, Diaresin Yellow H2G 177020-91-6, Kayaset Yellow EL 2R  
(pigment; light-resistant fireproofing styrene resin compns.)
- IT 5003-53-6, Polystyrene  
(polybutadiene-modified; light-resistant fireproofing styrene resin compns.)

L22 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:458598 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 133:89192

TITLE: The plausible aromaticity of 1,8-naphthalimides: the enthalpy of formation of N-methyl-1,8-naphthalimide

AUTHOR(S): Roux, Maria Victoria; Jimenez, Pilar; Davalos, Juan Z.; Martin-Luengo, Maria Angeles; Rotello, Vincent M.; Cuello, Alejandro O.; Liebman, Joel F. Instituto de Quimica Fisica "Rocasolano", C.S.I.C., Madrid, 28006, Spain

SOURCE: Structural Chemistry (2000), 11(1), 1-7

CODEN: STCHES; ISSN: 1040-0400

PUBLISHER: Kluwer Academic/Plenum Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

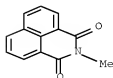
ED Entered STN: 09 Jul 2000

AB To understand the aromaticity of 1,8-naphthalimides, the enthalpies of combustion and sublimation of N-methyl-1,8-naphthalimide were determined. The numerical values are  $-6095.8 \pm 3.5$  and  $109.7 \pm 0.8$  kJ mol<sup>-1</sup>. The enthalpies of formation of condensed and gas phase N-methyl-1,8-naphthalimide are accordingly  $-306.1 \pm 3.9$  and  $-196.4 \pm 4.0$  kJ mol<sup>-1</sup>. Naphthalimides enjoy some 40 kJ mol<sup>-1</sup> of aromatic stabilization over that of the maleimides, shown to be nominally destabilized and modestly antiarom. in recently published thermochem. study.

IT 2382-08-3, N-Methyl-1,8-naphthalimide  
(combustion and formation enthalpy and sp. heat; enthalpy of formation of N-methyl-1,8-naphthalimide and plausible aromaticity of 1,8-naphthalimides)

RN 2382-08-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-methyl- (CA INDEX NAME)



IT 9002-88-4, Polyethylene  
 (combustion enthalpy and sp. heat; enthalpy of formation of  
 N-methyl-1,8-naphthalimide and plausible aromaticity of  
 1,8-naphthalimides)  
 RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (CA INDEX NAME)  
 CM 1  
 CRN 74-85-1  
 CMF C2 H4



IT 81-83-4, 1,8-Naphthalimide  
 (enthalpy of formation of N-methyl-1,8-naphthalimide and plausible  
 aromaticity of 1,8-naphthalimides)  
 RN 81-83-4 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione (CA INDEX NAME)



CC 22-13 (Physical Organic Chemistry)  
 Section cross-reference(s): 69  
 IT Aromaticity  
 Combustion enthalpy  
 Formation enthalpy  
 Heat capacity  
 Stabilization energy  
 Strain energy  
 Sublimation enthalpy  
 (enthalpy of formation of N-methyl-1,8-naphthalimide and plausible  
 aromaticity of 1,8-naphthalimides)  
 IT 2382-08-3, N-Methyl-1,8-naphthalimide  
 (combustion and formation enthalpy and sp. heat; enthalpy of  
 formation of N-methyl-1,8-naphthalimide and plausible aromaticity  
 of 1,8-naphthalimides)  
 IT 9002-88-4, Polyethylene  
 (combustion enthalpy and sp. heat; enthalpy of formation of  
 N-methyl-1,8-naphthalimide and plausible aromaticity of  
 1,8-naphthalimides)  
 IT 81-83-4, 1,8-Naphthalimide  
 (enthalpy of formation of N-methyl-1,8-naphthalimide and plausible  
 aromaticity of 1,8-naphthalimides)  
 REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L22 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1999:107109 HCAPLUS Full-text  
 DOCUMENT NUMBER: 130:197468  
 TITLE: Fireproof styrene resin compositions with easy  
 color control and improved light resistance  
 INVENTOR(S): Hsiao, Hung Yang; Shih, Ming Cheng; Kishimoto,  
 Manabu  
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan; Chi  
 Mei Corp.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11035786	A	19990209	JP 1997-188672	19970714
			<--	
TW 506992	B	20021021	TW 1998-87105644	19980414
			<--	
PRIORITY APPLN. INFO.:			JP 1997-188672	A 19970714
			<--	

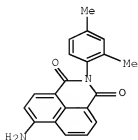
ED Entered STN: 16 Feb 1999

AB Title compns. comprise (A) rubber-modified styrene resins 100, (B) organic fireproofing agents 0.5-30, (C) light-fading yellow organic dyes or pigments 0.005-1.2, (D) organic dyes or pigments having a color complementary to the color of C 0.00005-1.2, (E) UV absorbers and/or steric hindrance amine-based light stabilizers 0-3, and (F) inorg. fillers 0.01-10 parts. Thus, butadiene rubber-modified acrylonitrile-styrene copolymer 100, EC 14 (brominated epoxy resin oligomer) 15, Sb2O3 5, chlorinated polyethylene 5, Kayaset Yellow EL 2R 0.002, Kayaset Blue N 0.0002, Tinuvin P 0.5, and R 680 1.5 parts were mixed, kneaded, and injection-molded to give a test piece showing ΔE 1.1 after 300-h UV irradiation, Izod impact strength 12 kg-cm/cm, and UL-94 fire resistance rating V-0.

IT 2478-20-8, Diaresin Yellow 6G  
 (fireproof rubber-modified styrene resin compns. containing  
 light-fading yellow dyes and light stabilizers for good  
 light resistance)

RN 2478-20-8 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
 (CA INDEX NAME)



IT 106677-58-1, Acrylonitrile-butadiene-styrene graft copolymer  
 106974-54-3, Butadiene-styrene graft copolymer  
 (fireproof rubber-modified styrene resin compns. containing  
 light-fading yellow dyes and light stabilizers for good  
 light resistance)  
 RN 106677-58-1 HCAPLUS  
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene, graft  
 (CA INDEX NAME)

CM 1

CRN 107-13-1

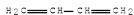
CMF C3 H3 N



CM 2

CRN 106-99-0

CMF C4 H6



CM 3

CRN 100-42-5

CMF C8 H8

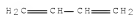


RN 106974-54-3 HCAPLUS  
 CN Benzene, ethenyl-, polymer with 1,3-butadiene, graft (CA INDEX NAME)

CM 1

CRN 106-99-0

CMF C4 H6



CM 2

CRN 100-42-5

CMF C8 H8

H<sub>2</sub>C—CH—Ph

- IC ICM C08L051-04  
ICS C08K005-3495; C08K005-49; C08L025-00
- CC 37-6 (Plastics Manufacture and Processing)
- ST fire resistance acrylonitrile butadiene styrene polymer; ABS  
brominated epoxy resin fireproofing agent; yellow dye ABS resin color  
control; light stabilizer benzotriazole ABS graft polymer
- IT Fire-resistant materials  
Fireproofing agents  
Light stabilizers  
UV stabilizers  
(fireproof rubber-modified styrene resin compns. containing  
light-fading yellow dyes and light stabilizers for good  
light resistance)
- IT Alicyclic compounds  
Epoxy resins, uses  
Epoxy resins, uses  
(halogenated, fireproofing agents; fireproof rubber-modified  
styrene resin compns. containing light-fading yellow dyes and light  
stabilizers for good light resistance)
- IT 79-94-7  
(PB 100, fireproofing agents; fireproof rubber-modified styrene  
resin compns. containing light-fading yellow dyes and light  
stabilizers for good light resistance)
- IT 13463-67-7, R 680, uses  
(fillers; fireproof rubber-modified styrene resin compns. containing  
light-fading yellow dyes and light stabilizers for good  
light resistance)
- IT 2478-28-8, Diaresin Yellow 6G 4118-16-5, Kayaset Yellow E-AR  
17354-14-2, Kayaset Blue N 75216-43-2, Diaresin Yellow H 2G  
177020-91-6, Kayaset Yellow EL 2R  
(fireproof rubber-modified styrene resin compns. containing  
light-fading yellow dyes and light stabilizers for good  
light resistance)
- IT 106677-58-1, Acrylonitrile-butadiene-styrene graft copolymer  
106974-54-3, Butadiene-styrene graft copolymer  
(fireproof rubber-modified styrene resin compns. containing  
light-fading yellow dyes and light stabilizers for good  
light resistance)
- IT 85-41-6D, Phthalimide, compds., halogenated 496-11-7D, Indane,  
derivs., halogenated 6542-67-2D, Triazines, compds., halogenated  
7723-14-0D, Phosphorus, compds., halogen-containing, uses 19186-97-1, CR  
900 21850-44-2, FG 3100 25637-99-4, Hexabromocyclododecane  
25713-60-4, SR 245 139638-58-7, Pratherm EC 14  
(fireproofing agents; fireproof rubber-modified styrene resin  
compns. containing light-fading yellow dyes and light  
stabilizers for good light resistance)
- IT 2440-22-4 52829-07-9, LS 770  
(light stabilizers; fireproof rubber-modified styrene  
resin compns. containing light-fading yellow dyes and light

(stabilizers for good light resistance)

L22 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:44519 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 130:189232

TITLE: Preparation, photochemical stability and photostabilizing efficiency of adducts of 1,8-naphthaleneimide and hindered amine stabilizers in polymer matrices

AUTHOR(S): Chmela, S.; Danko, M.; Hrdlovic, P.

CORPORATE SOURCE: Polymer Inst., Slovak Acad. Sci., Bratislava, 842 36, Slovakia

SOURCE: Polymer Degradation and Stability (1998

), Volume Date 1999, 63(1), 159-164

CODEN: PDSTDW; ISSN: 0141-3910

Elsevier Science Ltd.

PUBLISHER:

DOCUMENT TYPE: Journal

LANGUAGE: English

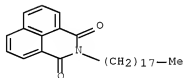
ED Entered STN: 22 Jan 1999

AB Adducts of 1,8-naphthaleneimide and hindered amine stabilizer (HAS) such as 1-R-substituted 2,2,6,6-tetramethyl-4-aminopiperidine were prepared where R is -H, -O, -OH, -COCH<sub>3</sub> and -OCOCH<sub>3</sub>. The photochem. stability of adducts was determined at photolysis in isotactic polypropylene, polystyrene and poly(vinyl chloride). Their photostabilizing efficiency was determined at photooxidn. of isotactic polypropylene. The photochem. stability of the adducts is low in all matrixes. The N-oxy derivative was the most stable in all matrixes. The photolysis of all derivs. is the slowest in polystyrene. Intramolecularly combined chromophore/HAS are less effective stabilizers than in 1:1 mixture of separated components. The 1,8-naphthaleneimide chromophore decreases the stabilization efficiency of hindered amine structural units as compared to its absence.

IT 84165-18-4P, N-Octadecyl-1,8-naphthaleneimide  
 204853-35-0P, N-(2,2,6,6-Tetramethylpiperidin-4-yl)-1,8-naphthaleneimide  
 204853-38-3P, N-(1-Acetyloxy-2,2,6,6-Tetramethylpiperidin-4-yl)-1,8-naphthaleneimide  
 (photostability and stabilizing efficiency against polymer photooxidn. of hindered amines in polymer matrixes in presence of bound- and free naphthaleneimide chromophore)

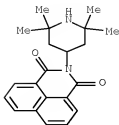
RN 84165-18-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-octadecyl- (CA INDEX NAME)



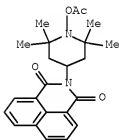
RN 204853-35-0 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(2,2,6,6-tetramethyl-4-piperidinyl)- (CA INDEX NAME)



RN 204853-38-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[1-(acetyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]- (CA INDEX NAME)



IT 9003-07-0, Polypropylene 9003-53-6, Polystyrene  
(stabilizing efficiency of hindered amines in presence of  
bound- and free naphthaleneimide chromophore against polymers  
photooxidn.)

RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8





CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST naphthaleneimide hindered amine adduct polymer stabilizer  
photochem stability; polymer photodegradn stabilizer  
naphthaleneimide hindered amine adduct photolysis

IT Polymer degradation  
(photochem.; photostability and stabilizing efficiency  
against polymer photobleaching of hindered amines in polymer  
matrixes in presence of bound- and free naphthaleneimide  
chromophore)

IT Oxidation kinetics  
(photooxidn.; photostability and stabilizing efficiency  
against polymer photobleaching of hindered amines in polymer  
matrixes in presence of bound- and free naphthaleneimide  
chromophore)

IT Photolysis  
Photolysis kinetics  
(photostability and stabilizing efficiency against  
polymer photobleaching of hindered amines in polymer matrixes in  
presence of bound- and free naphthaleneimide chromophore)

IT Oxidation, photochemical  
Photochemical bleaching  
(stabilizers; stabilizing efficiency of  
hindered amines in presence of bound- and free naphthaleneimide  
chromophore against polymers photooxidn.)

IT Light stabilizers  
(stabilizing efficiency of hindered amines in presence of  
bound- and free naphthaleneimide chromophore against polymers  
photooxidn.)

IT 81-84-5, 1,8-Naphthalenedicarboxylic acid anhydride  
(photostability and stabilizing efficiency against  
polymer photooxidn. of hindered amines in polymer matrixes in  
presence of bound- and free naphthaleneimide chromophore)

IT 10060-33-0P, Dimethyl 1,8-Naphthalenedicarboxylate 84165-13-4P  
, N-Octadecyl-1,8-naphthaleneimide 204853-35-0P,  
N-(2,2,6,6-Tetramethylpiperidin-4-yl)-1,8-naphthaleneimide  
204853-36-1P, N-(1-Oxy-2,2,6,6-Tetramethylpiperidin-4-yl)-1,8-  
naphthaleneimide 204853-37-2P, N-(1-Acetyl-2,2,6,6-  
Tetramethylpiperidin-4-yl)-1,8-naphthaleneimide 204853-38-3P  
, N-(1-Acetyloxy-2,2,6,6-Tetramethylpiperidin-4-yl)-1,8-  
naphthaleneimide  
(photostability and stabilizing efficiency against  
polymer photooxidn. of hindered amines in polymer matrixes in  
presence of bound- and free naphthaleneimide chromophore)

IT 9002-86-2, Poly(vinyl chloride) 9003-07-0, Polypropylene  
9003-53-6, Polystyrene  
(stabilizing efficiency of hindered amines in presence of  
bound- and free naphthaleneimide chromophore against polymers  
photooxidn.)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L22 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1998:427936 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 129:149626  
TITLE: Weather-resistant polycarbonate resin composition

INVENTOR(S): Oashi, Kazuhiro; Nishihata, Toru  
 PATENT ASSIGNEE(S): Tsutsunaka Plastic Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10176103	A	19980630	JP 1996-339484	19961219

PRIORITY APPLN. INFO.: JP 1996-339484 19961219  
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OTHER SOURCE(S): MARPAT 129:149626

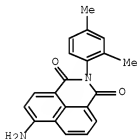
ED Entered STN: 11 Jul 1998

AB The title comps. contain polycarbonates, specified triazine compound UV absorbents, and, as fluorescent whitening agents,  $\geq 1$  coumarin compound or naphthimide compound. The comps. have good weather resistance. A composition contained Iupilon E2000F, Tinuvin 1577, and Diaresin brilliant yellow 6G.

IT 2478-20-8, Diaresin brilliant yellow 6G  
 (weather-resistant polycarbonate resin composition)

RN 2478-20-8 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
 (CA INDEX NAME)



IC ICM C08L069-00

ICS C08K005-15; C08K005-3417; C08K005-3492

CC 37-6 (Plastics Manufacture and Processing)

IT Fluorescent brighteners

UV stabilizers

(weather-resistant polycarbonate resin composition)

IT Polycarbonates, uses

(weather-resistant polycarbonate resin composition)

IT 2478-20-8, Diaresin brilliant yellow 6G 147315-50-2, Tinuvin 1577

(weather-resistant polycarbonate resin composition)

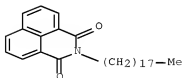
L22 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:132926 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 128:250524

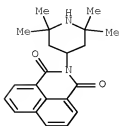
TITLE: Spectral characteristics and photochemical stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer

matrix  
 AUTHOR(S): Hrdlovic, Pavol; Chmela, Stefan; Danko, Martin  
 CORPORATE SOURCE: Polymer Inst., Slovak Acad. Sci., Bratislava, 842  
 36, Slovakia  
 SOURCE: Journal of Photochemistry and Photobiology, A:  
 Chemistry (1993), 112(2,3), 197-203  
 CODEN: JPPCEJ; ISSN: 1010-6030  
 PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 06 Mar 1998  
 AB Fluorescence probes of type N-(1'-R-2',2',6',6'-tetramethyl-4'- piperidinyl)-  
 1,8-naphthaleneimide exhibit spectral properties which are influenced by  
 environment and substitution (R) on sterically hindered nitrogen of piperidine  
 moiety. Absorption spectra of parent amine and its N substituted derivs. show  
 the longest wavelength band around 340 nm (log.vepsiln..apprx.4.0) which is  
 well resolved in cyclohexane. In polar methanol it is only slightly blue  
 shifted. Substitution on sterically hindered nitrogen does not influence the  
 absorption spectra in near UV region. Fluorescence spectra of the probes have  
 maximum around 385 nm in methanol and comparable intensity as anthracene. In  
 nonpolar cyclohexane the fluorescence intensity is low (more than 100+). In  
 nonpolar isotactic polypropylene matrix the red shifted excimer like emission  
 in the range 440-470 nm was observed. The N-oxy and N-hydroxy derivs. under  
 the same conditions do not yield the excimer emission. In other polymer  
 matrixes as polystyrene, poly(Me methacrylate) and polyvinylchloride similar  
 emission as in methanol was observed, the emission in latter matrix being the  
 most intense. The fluorescence lifetime in polar solvent and matrixes is less  
 than 1 ns and deviates slightly from monoexponential. In nonpolar iPP, the  
 fluorescence lives longer around 5 ns and its decay is more complex.  
 Intermol. quenching of the probes by 1-oxy-2,2,6,6-tetramethyl-4-  
 hydroxypiperidine in methanol occurs at the rate which is above the diffusion  
 controlled limit what might indicate the involvement of the polar medium in  
 the process. Intramol. quenching, expressed as the ratio INH/INO for parent  
 and oxidized amine resp., strongly depends on the medium as well. In polar  
 methanol this ratio is about 30 while in polymer matrixes 2-4 only.  
 Photolysis of probes doped in polymer matrixes with radiation above 300 nm  
 revealed that the parent amine is about 3+ more stable as 1,8-naphthoic  
 anhydride or N-octadecyl-1,8-naphthaleneimide.  
 IT 84165-18-4 204853-35-0 204853-36-3  
 204853-39-4  
 (spectral characteristics and photochem. stability of  
 fluorescence probes based on 1,8-naphthaleneimide in solution and in  
 polymer matrix)  
 RN 84165-18-4 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-octadecyl- (CA INDEX NAME)



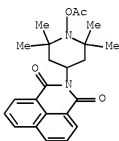
RN 204853-35-0 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(2,2,6,6-tetramethyl-4-

piperidiny]- (CA INDEX NAME)



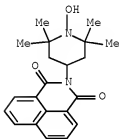
RN 204853-38-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[1-(acetyloxy)-2,2,6,6-tetramethyl-4-piperidiny]- (CA INDEX NAME)



RN 204853-39-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(1-hydroxy-2,2,6,6-tetramethyl-4-piperidiny)- (CA INDEX NAME)



IT 2003-53-6, Polystyrene 25005-53-4, Isotactic polypropylene

(spectral characteristics and photochem. stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer matrix)

RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



RN 25085-53-4 HCAPLUS

CN 1-Propene, homopolymer, isotactic (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Fluorescence

Fluorescence quenching

Photolysis

Photolysis kinetics

Solvent effect

Steric effects

(spectral characteristics and photochem. stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer matrix)

IT 2226-96-2

(spectral characteristics and photochem. stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer matrix)

IT 81-84-5, 1,8-Naphthalenedicarboxylic acid anhydride 10060-33-0,

1,8-Naphthalenedicarboxylic acid dimethyl ester 84165-18-4

204853-35-0 204853-36-1 204853-37-2 204853-38-3

204853-39-4

(spectral characteristics and photochem. stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer matrix)

IT 67-56-1, Methanol, properties 110-82-7, Cyclohexane, properties

9002-86-2, Polyvinyl chloride 9003-53-6, Polystyrene

9011-14-7, Polymethyl methacrylate 25085-53-4, Isotactic

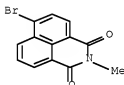
polypropylene

(spectral characteristics and photochem. stability of fluorescence probes based on 1,8-naphthaleneimide in solution and in polymer matrix)

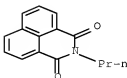
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:663657 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 127:363818  
 TITLE: Internal photostabilization of polymeric solid-state dye lasers based on trichromophoric rhodamine 6G molecules  
 AUTHOR(S): Costela, A.; Garcia-Moreno, I.; Tian, H.; Su, J.; Chen, K.; Amat-Guerri, F.; Carrascoso, M.; Barroso, J.; Sastre, R.  
 CORPORATE SOURCE: Instituto de Química Física Rocasolano, CSIC, Serrano 119, Madrid, 28006, Spain  
 SOURCE: Chemical Physics Letters (1997), 277(4), 392-398  
 CODEN: CHPLBC; ISSN: 0009-2614  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 18 Oct 1997  
 AB We report on the lasing action of a modified rhodamine 6G dye with two covalently bonded identical 1,8-naphthalimide groups in liquid solution in ethanol and in solid solns. in a methacrylate copolymer. When the solid samples are transversely pumped with 534 nm pulses at a repetition rate of 1 Hz, we observed that the presence of the naphthalimide groups results in a clear photostabilization of the material. Possible mechanisms for the photostabilization process are suggested.  
 IT 4116-90-9 6914-61-0  
 (polymeric solid-state dye lasers using trichromophoric rhodamine 6G derivs. and comparison with model compds.)  
 RN 4116-90-9 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-bromo-2-methyl- (CA INDEX NAME)



RN 6914-61-0 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-propyl- (CA INDEX NAME)



CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)  
 Section cross-reference(s): 38, 41

IT Light stabilizers  
(dye lasers using naphthalimide groups for photostabilization of  
rhodamine 6G mols. in methacrylate copolymer matrix)

IT Acrylic polymers, uses  
(solid-state dye lasers using trichromophoric rhodamine 6G mols. in  
methacrylate copolymer matrix)

IT 4116-90-9 6914-61-0  
(polymeric solid-state dye lasers using trichromophoric rhodamine  
6G derivs. and comparison with model compds.)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L22 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:814910 HCAPLUS Full-text

DOCUMENT NUMBER: 123:324148

TITLE: A new radiation stable plastic scintillator

AUTHOR(S): Senchishin, V. G.; Markley, F.; Lebedev, V. N.;  
Kovtun, V. E.; Koba, V. S.; Kuznichenko, A. V.;  
Tizkaja, V. D.; Budagov, J. A.; Bellettini, G.; et  
al.

CORPORATE SOURCE: Institute for Monocrystals, Kharkov, 310001,  
Ukraine

SOURCE: Nuclear Instruments & Methods in Physics Research,  
Section A: Accelerators, Spectrometers, Detectors,  
and Associated Equipment (1995), 364(2),  
253-7

CODEN: NIMAER; ISSN: 0168-9002

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

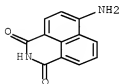
ED Entered STN: 27 Sep 1995

AB The influence of various components of a plastic scintillator (high concns. of  
primary dopant, secondary fluor, diffusion enhancer and stabilizer) on its  
radiation hardness was exptl. determined The diffusion enhancing technique  
was the most powerful tool for improving radiation hardness. A new  
polystyrene scintillator that decreases its light output by only 4% after 2.8  
Mrad irradiation was produced.

IT 1742-95-6, 4-Aminonaphthalimide 6914-98-3,  
n-Phenylnaphthalimide  
(dopant; radiation stable plastic scintillator)

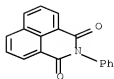
RN 1742-95-6 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino- (CA INDEX NAME)



RN 6914-98-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-phenyl- (CA INDEX NAME)



IT 9003-53-6, Polystyrene  
 (radiation stable plastic scintillator)  
 RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5  
 CMF C8 H8

$H_2C=CH-Ph$

CC 71-7 (Nuclear Technology)  
 IT Phosphors  
 Polymerization  
 Stabilizing agents  
 (radiation stable plastic scintillator)  
 IT 92-06-8, m-Terphenyl 101-84-8, Diphenyloxide 852-38-0, PBD  
 1321-94-4, Methylnaphthalene 1742-95-6, 4-Aminonaphthalimide  
 4288-15-7, Tin caprylate 6914-98-3, n-Phenylnaphthalimide  
 170136-80-8, D 118 (fluor) 170136-81-9, D 172  
 (dopant; radiation stable plastic scintillator)  
 IT 9003-53-6, Polystyrene  
 (radiation stable plastic scintillator)

L22 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:671838 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:271838  
 TITLE: Preparation of magnetic latex particles by  
 emulsion polymerization of styrene in the presence  
 of a ferrofluid  
 AUTHOR(S): Yanase, Noriko; Noguchi, Hiromichi; Asakura,  
 Hideki; Suzuta, Tatsuo  
 CORPORATE SOURCE: Dep. Immunol. Serol., Tokyo Med. Coll., Tokyo,  
 160, Japan  
 SOURCE: Journal of Applied Polymer Science (1993  
 ), 50(5), 765-76  
 CODEN: JAPNAB; ISSN: 0021-8995  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

ED Entered STN: 25 Dec 1993

AB Magnetic latex particles were prepared by the emulsion polymerization of styrene at 70° in the presence of a com. ferrofluid containing surfactant-stabilized magnetite particles in the aqueous phase or its modification by ultrafiltration, using K2S2O8 as an initiator. The effects of diversified



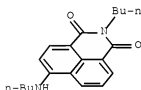
variables such as the amts. of initiator, monomer, and additive (CaCl<sub>2</sub> and fluorescent dyes) on the polymerization reaction and particle characteristics were investigated. The general polymerization features were analogous to those of ordinary emulsion polymerization. Transmission electron microscopy revealed that when the com. ferrofluid was used, the magnetite particles localized in the latex particles and the magnetite content varied from particle to particle; when the ferrofluid was used after ultrafiltration, the magnetite particles were dispersed well in the latex particles.

IT 19125-99-6

(emulsion polymerization of styrene with magnetite in presence of)

RN 19125-99-6 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-butyl-6-(butylamino)- (CA INDEX NAME)



IT 9003-53-6P, Polystyrene

(magnetite-containing latexes of, preparation and characterization of)

RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37

IT 10043-52-4, Calcium chloride, uses 19125-99-6

(emulsion polymerization of styrene with magnetite in presence of)

IT 9003-53-6P, Polystyrene

(magnetite-containing latexes of, preparation and characterization of)

L22 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:436032 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 119:36032

TITLE: Study of the radiation resistance of scintillators based on polystyrene

AUTHOR(S): Britvich, G. I.; Vasil'chenko, V. G.; Peresypkin, A. I.; Rykalin, V. I.; Kornilovskaya, L. D.; Malinovskaya, S. A.; Skripkina, V. T.; Shershukov, V. M.; Yushko, E. G.; et al.

CORPORATE SOURCE: Inst. Fiz. Vys. Energ., Serpukhov, Russia

SOURCE: Pribery i Tekhnika Eksperimenta (1993),

(1), 109-17

CODEN: PRTEAJ; ISSN: 0032-8162

DOCUMENT TYPE:

Journal

LANGUAGE:

Russian

ED Entered STN: 24 Jul 1993

AB The radiation resistance was studied of polystyrene scintillators with different scintillation additives. Samples of thickness 5 mm and diameter 25 mm were irradiated by  $\gamma$ -rays from a  $^{137}\text{Cs}$  source in air at room temperature. Under these same conditions, a partial recovery of the light output of the irradiated samples was observed. More than 30 phosphors were studied. The most radiation-resistant ones were those with the secondary scintillation additives X25, X31, 3HF, and M3HF. The radiation resistance of a polystyrene scintillator can be increased by significantly increasing the concentration of the primary additive (up to 10%) and by adding naphthalene.

IT 81-83-4D, 1H-Benz[de]isoquinoline-1,3(2H)-dione, derivs.

18618-86-5 89393-97-5

(radiation resistance of scintillators based on polystyrene with additive of)

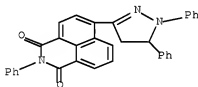
RN 81-83-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione (CA INDEX NAME)



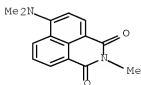
RN 18618-86-5 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(4,5-dihydro-1,5-diphenyl-1H-pyrazol-3-yl)-2-phenyl- (CA INDEX NAME)



RN 89393-97-5 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(dimethylamino)-2-methyl- (CA INDEX NAME)



IT 9003-53-6, Polystyrene  
 (scintillators based on, radiation resistance of)  
 RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5  
 CMF C8 H8

$H_2C=CH-Ph$

CC 71-7 (Nuclear Technology)  
 Section cross-reference(s): 38, 73

IT Gamma ray  
 (stability of polystyrene scintillators with different  
 additives exposed to)

IT 81-83-4D, 1H-Benz[de]isoquinoline-1,3(2H)-dione, derivs.  
 81-84-5D, 1H,3H-Naphtho[1,8-cd]pyran-1,3-dione, derivs. 90-12-0  
 91-20-3, Naphthalene, uses 92-71-7, PPO 92-94-4,  
 1,1':4',1''-Terphenyl 94-41-7 273-53-0D, Benzoxazole, derivs.  
 577-85-5 840-57-3 852-37-9 852-38-0 1806-34-4 2515-62-0  
 2538-52-5 4061-32-9 6889-78-7 7128-64-5 15082-28-7  
 18618-86-5 19429-39-1 27425-55-4 32444-53-4 40875-48-7  
 41044-12-6 59715-47-8 61283-15-6 67223-55-6 87973-59-9  
 89393-97-5 104788-78-5 108783-69-3 147125-92-6  
 (radiation resistance of scintillators based on polystyrene with  
 additive of)

IT 9003-53-6, Polystyrene  
 (scintillators based on, radiation resistance of)

L22 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:546583 HCAPLUS Full-text

DOCUMENT NUMBER: 115:146583

TITLE:  
 Coating compositions for fabrication of  
 electrophotographic photoconductors  
 Momotake, Hiroyuki; Sasagawa, Tomoyoshi; Koide,  
 Tetsuhiro; Sugawa, Hiroshi

PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

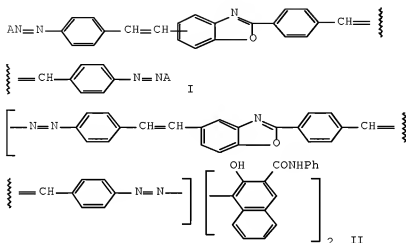
DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03024553	A	19910201	JP 1989-158298	19890622
			<--	
JP 2815902	B2	19981027		
PRIORITY APPLN. INFO.:			JP 1989-158298	19890622
			<--	
OTHER SOURCE(S):		MARPAT 115:146583		

ED Entered STN: 05 Oct 1991  
GI



AB The title coating comps. are dispersions of diazo dyes I (A = coupler group) in solvent solns. of poly(vinyl butyral). The invention includes similar dispersions in solvent solns. of vinyl chloride copolymers. These dispersions have high dispersed state and dispersion stability, and provide highly performing photoconductors. Thus, 2.5 g II was dispersed in 25 mL 10% solution of Bakelite XYHL in THF, and mixed with 30 mL THF. An Al plate was coated with this dispersion and dried to form a 0.5- $\mu$ m-thick charge-generating layer. A charge-transporting layer containing a tetraphenylthiophene derivative and polycarbonate was coated on the charge-generating layer, to obtain a photoconductor that showed high layer adhesion. The photoconductor was chargeable to -1000 V, which decayed to -980 V after 2 s, and showed residual voltage -5 V and sensitivity (lx-s required for half decay of charged voltage) 1.5. These values were -980 V, -900 V, -5 V and 1.6, resp., after 1000 charge-photodischarge cycles. The coating composition showed no change on standing for 1 mo.

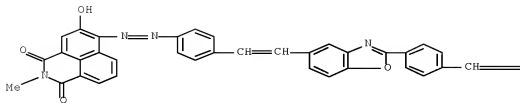
IT 136208-46-3 136208-49-6 136208-50-9

(diazo dye, electrophotog. photoconductors containing)

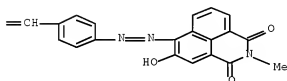
RN 136208-46-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-[[4-[2-[4-[5-[2-[4-[(2,3-dihydro-5-hydroxy-2-methyl-1,3-dioxo-1H-benz[de]isoquinolin-6-yl)azo]phenyl]ethenyl]-2-benzoxazolyl]phenyl]ethenyl]phenyl]azo]-5-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A



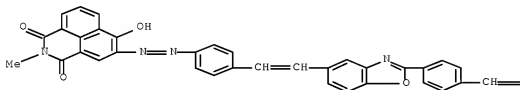
PAGE 1-B



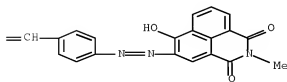
RN 136208-49-6 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-[[4-[2-[4-[5-[2-[4-[(2,3-dihydro-6-hydroxy-2-methyl-1,3-dioxo-1H-benz[de]isoquinolin-5-yl)azo]phenyl]ethenyl]-2-benzoxazolyl]phenyl]ethenyl]phenyl]azo]-6-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

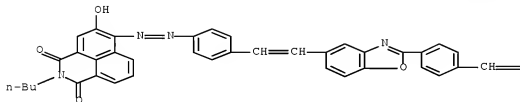


PAGE 1-B

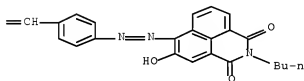


RN 136208-50-9 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-butyl-6-[[4-[2-[4-[5-[2-[4-[(2-butyl-2,3-dihydro-5-hydroxy-1,3-dioxo-1H-benz[de]isoquinolin-6-yl)azo]phenyl]ethenyl]-2-benzoxazolyl]phenyl]ethenyl]phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-06  
 ICS C08K005-353; C08L029-14; C09D129-14; G03G005-05  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Vinyl acetal polymers  
 (butyral, binders, charge-generating layer of electrophotog. photoconductors containing diazo dyes and)  
 IT 117829-87-5 117829-89-7 117829-90-0 117829-92-2 117829-96-6  
 119099-97-7 136208-44-1 136208-46-3 136208-47-4  
 136208-48-5 136208-49-6 136208-50-9  
 (diazo dye, electrophotog. photoconductors containing)

L22 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1987:460843 HCAPLUS Full-text  
 DOCUMENT NUMBER: 107:60843  
 TITLE: Aqueous fluorescent inks for marking pens  
 INVENTOR(S): Ando, Takafusa; Sakano, Naomi  
 PATENT ASSIGNEE(S): Pilot Ink Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61291664	A	19861222	JP 1985-132772	19850618
JP 05045633	B	19930709	<--	
PRIORITY APPLN. INFO.:			JP 1985-132772	19850618
			<--	

ED Entered STN: 21 Aug 1987

AB Title inks comprise fluorescent pigments, alkali-soluble polymers, rosin ester emulsions, and covering pigments selected from TiO<sub>2</sub> or pearl pigments composed of TiO<sub>2</sub>-coated mica. Thus, C.I. Basic Red 1 aqueous paste 40, TiO<sub>2</sub> aqueous paste 10, rosin pentaerythritol ester emulsion 15, maleic acid-styrene copolymer 25, EtOH 4.8, ethylene glycol 3.0, triethanolamine 0.5, and water 1.7 parts were mixed to give a fluorescent pink ink having better dispersion stability and redispersibility than a control not containing the rosin ester emulsion.

IT 25085-34-1, Acrylic acid-styrene copolymer 25300-64-5

, Maleic acid-styrene copolymer

(fluorescent marking inks containing, for good adhesion)

RN 25085-34-1 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 100-42-5

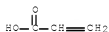
CMF C8 H8



CM 2

CRN 79-10-7

CMF C3 H4 O2



RN 25300-64-5 HCAPLUS

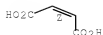
CN 2-Butenedioic acid (2Z)-, polymer with ethenylbenzene (CA INDEX NAME)

CM 1

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



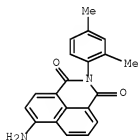
CM 2

CRN 100-42-5

CMF C8 H8



- IT 2478-20-8, C.I. Solvent Yellow 44  
(fluorescent pigment, C.I. Solvent Yellow 44, aqueous marking inks  
containing rosin ester and titanium oxide and)
- RN 2478-20-8 HCAPLUS
- CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-amino-2-(2,4-dimethylphenyl)-  
(CA INDEX NAME)



- IC ICM C09D011-16
- CC 42-12 (Coatings, Inks, and Related Products)
- IT 79-10-7D, esters, polymer with styrene 100-42-5D, Styrene, polymer  
with acrylate esters 25065-34-1, Acrylic acid-styrene  
copolymer 25300-64-5, Maleic acid-styrene copolymer  
(fluorescent marking inks containing, for good adhesion)
- IT 115-77-5D, Pentaerythritol, esters with rosin acids  
(fluorescent marking inks containing, for good dispersion  
stability)
- IT 2478-20-8, C.I. Solvent Yellow 44  
(fluorescent pigment, C.I. Solvent Yellow 44, aqueous marking inks  
containing rosin ester and titanium oxide and)
- IT 56-81-5, Rosin acids, esters, uses and miscellaneous  
(with glycerol or pentaerythritol, fluorescent marking inks containing,  
for good dispersion stability)

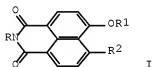
L22 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1985:15050 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 102:15050



ORIGINAL REFERENCE NO.: 102:2409a,2412a  
 TITLE: Electrophotographic printing toner  
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59114546	A	19840702	JP 1982-223990	19821222
			<--	
PRIORITY APPLN. INFO.:			JP 1982-223990	19821222
			<--	

ED Entered STN: 12 Jan 1985  
 GI

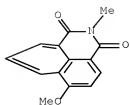


AB An electrophotog. toner is described which contains a compound of the formula I (R = C1-9 straight or branched alkyl, C4-9 alkoxyalkyl, cyclohexyl, Ph which may have a Me, Et, MeO, or EtO substituent; R1 = C1-4 alkyl, C3-6 alkoxyalkyl; R2 = H, OR1). These compds., which are used as charge-controlling agents, have a high compatibility with binder resins and provide a toner with high specific charge, storage stability, hygroscopicity, and durability, and as the compds. are colorless, a toner having a desired color is obtained by the joint use of a pigment. Thus, a mixture of a methacrylate monomer-styrene copolymer 100, C black 20, and I (R = Me; R1 = Me; R2 = H) 5 parts was kneaded and pulverized to give a toner which showed stable charging properties after storage at 100% relative humidity for a week and gave high d. images.

IT 3271-05-4 22330-48-9 36780-16-2  
 36785-26-9 81462-77-3 93672-60-7  
 93672-61-8  
 (electrophotog. toner containing, as charge-controlling agent)

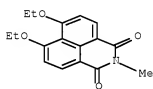
RN 3271-05-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-methoxy-2-methyl- (CA INDEX NAME)



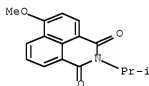
RN 22330-48-9 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,7-diethoxy-2-methyl- (CA INDEX NAME)



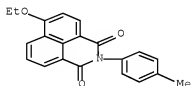
RN 36780-16-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-methoxy-2-(1-methylethyl)- (CA INDEX NAME)



RN 36785-26-9 HCAPLUS

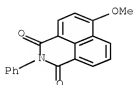
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-ethoxy-2-(4-methylphenyl)- (CA INDEX NAME)



RN 81462-77-3 HCAPLUS

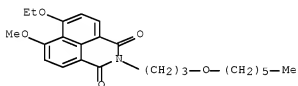
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-methoxy-2-phenyl- (CA INDEX NAME)

NAME)



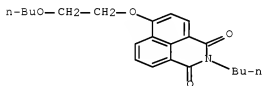
RN 93672-60-7 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-ethoxy-2-[3-(hexyloxy)propyl]-7-methoxy- (CA INDEX NAME)



RN 93672-61-8 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(2-butoxyethoxy)-2-butyl- (CA INDEX NAME)



IT 9003-53-6

(oligomeric, electrophotog. toner containing naphthalenedicarboximide derivative charge-controlling agent and)

RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



IC G03G009-08  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 3271-03-4 22330-48-9 36780-16-2  
 36785-26-9 81462-77-3 93672-60-7  
 93672-61-6  
 (electrophotog. toner containing, as charge-controlling agent)  
 IT 6994-46-3 9003-53-6  
 (oligomeric, electrophotog. toner containing naphthalenedicarboximide derivative charge-controlling agent and)

L22 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:53188 HCAPLUS Full-text  
 DOCUMENT NUMBER: 100:53188  
 ORIGINAL REFERENCE NO.: 100:8137a,8140a  
 TITLE: 1,3,5-Triaryl-2-pyrazolines and photostabilizers made from them  
 AUTHOR(S): Markov, V. I.; Slezko, E. G.  
 CORPORATE SOURCE: USSR  
 SOURCE: Voprosy Khimii i Khimicheskoi Tekhnologii ( 1983), 70, 26-30  
 CODEN: VKKCAJ; ISSN: 0321-4095

DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

ED Entered STN: 12 May 1984

AB The major impurity in tech. 1,3,5-triphenyl-2-pyrazoline (I) [742-01-8], used in the manufacture of daylight fluorescent pigments and dyes and in scintillation technol., was identified as 1,3,5-triphenylpyrazole (II) [2183-27-9], present in the amount of 3.6-4.8%. A purer I can be prepared by carrying out the synthesis from PhCHO, PhCOMe, and PhNHNH2 in the presence of a reducing such as Na2S2O4. II proved to be a better UV stabilizer for polypropylene [9003-07-0] than Tinuvin P or Tinuvin 326.

IT 9003-07-0  
 (UV stabilizers for, triphenylpyrazole as)

RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

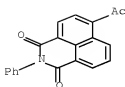
CMF C3 H6

$H_3C-CH=CH_2$

IT 78759-60-1  
 (reaction of, with benzaldehyde and phenylhydrazine)

RN 78759-60-1 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-acetyl-2-phenyl- (CA INDEX NAME)



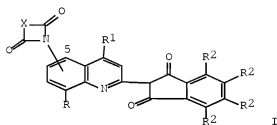
CC 41-9 (Dyes, Organic Pigments, Fluorescent Brighteners, and  
Photographic Sensitizers)  
Section cross-reference(s): 28, 37, 45  
ST pyrazoline triphenyl purity; pyrazole triphenyl UV stabilizer  
; UV stabilizer triphenylpyrazole  
IT light stabilizers  
(UV, triphenylpyrazole, for polypropylene)  
IT 9003-07-0  
(UV stabilizers for, triphenylpyrazole as)  
IT 98-86-2, reactions 99-91-2 78759-60-1  
(reaction of, with benzaldehyde and phenylhydrazine)

L22 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:205785 HCAPLUS Full-text  
Correction of: 1977:586075  
DOCUMENT NUMBER: 90:205785  
Correction of: 87:186075  
ORIGINAL REFERENCE NO.: 90:32749a,32752a  
TITLE: Quinoline derivatives  
INVENTOR(S): Shimada, Keizo; Harada, Toshiaki; Koga, Masahiro  
PATENT ASSIGNEE(S): Teijin Ltd., Japan  
SOURCE: Ger. Offen., 58 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2706872	C3	19791025	DE 1977-2706872	19770217
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DE 2706872	B2	19790308		
DE 2706872	A1	19770825		
JP 52098757	A	19770818	JP 1976-15455	19760217
			<--	
JP 59001300	B	19840111		
JP 53000228	A	19780105	JP 1976-74394	19760625
			<--	
JP 53041324	A	19780414	JP 1976-115370	19760928
			<--	
JP 60012373	B	19850401		
JP 53045329	A	19780424	JP 1976-119878	19761007
			<--	
JP 53052538	A	19780513	JP 1976-127343	19761025
			<--	
PRIORITY APPLN. INFO.:			JP 1976-15455	A 19760217
			<--	
			JP 1976-74394	A 19760625

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 JP 1976-115370 A 19760928  
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 JP 1976-119878 A 19761007  
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 JP 1976-127343 A 19761025  
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ED Entered STN: 12 May 1984  
 GI

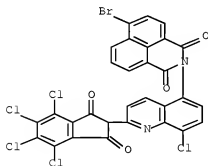


AB Heat-stable, yellow quinophthalone pigments (I; R = Me, EtO, MeO, Cl, Br; R1 = H, Me; R2 = Cl, Br; X = o-C6H4, halo-substituted o-C6H4, C10H6, halo-substituted C10H6) are prepared and used to dye plastics and polyester fibers. Thus, reaction of crotonaldehyde [4170-30-3] with o-chloroaniline [95-51-2] in HCl to give 8-chloroquinoline [3033-82-7], which was nitrated, reduced, and treated successively with phthalic anhydride [85-44-9] and 3,4,5,6-tetrachlorophthalic anhydride [117-08-8] to give I (R = R2 = Cl, R1 = H, X = o-C6H4; 5-substitution) [64485-80-9]. Other I were similarly prepared

IT 64485-46-7 64485-50-3  
 (pigment, for fiber and plastics, preparation and spectra of)

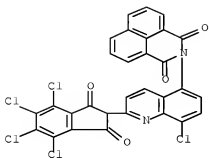
RN 64485-46-7 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-bromo-2-[8-chloro-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-5-quinolinyl]- (CA INDEX NAME)

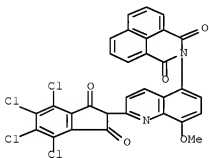


RN 64485-50-3 HCAPLUS

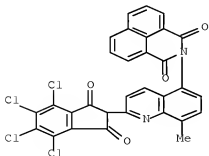
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[8-chloro-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-5-quinolinyl]- (CA INDEX NAME)



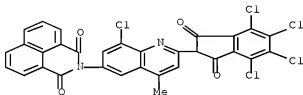
IT 64485-60-5 64485-63-8 64485-77-4  
 (pigment, for fibers and plastics, preparation and spectra of)  
 RN 64485-60-5 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[8-methoxy-2-(4,5,6,7-  
 tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-5-quinolinyl]- (CA  
 INDEX NAME)



RN 64485-63-8 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[8-methyl-2-(4,5,6,7-  
 tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-5-quinolinyl]- (CA  
 INDEX NAME)



RN 64485-77-4 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[8-chloro-4-methyl-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-6-quinolinyl]- (CA INDEX NAME)



IT 9002-88-4 9003-07-0 9003-53-6  
 (pigments for, haloquinophthalones as)  
 RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8



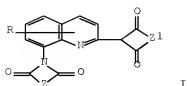
H<sub>2</sub>C=CH-Ph

IC C09B025-00  
 CC 40-6 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST quinophthalone dye heat stable; pigment quinophthalone heat stable;  
 polyester fiber dye; heat stability quinophthalone dye;  
 haloquinophthalone dye heat stable  
 IT 64485-42-3 64485-43-4 64485-44-5 64485-45-6 64485-46-7  
 64485-47-8 64485-48-9 64485-49-0 64485-50-3 64485-51-4  
 64485-54-7 64485-55-8 64485-56-9  
 (pigment, for fiber and plastics, preparation and spectra of)  
 IT 64485-59-2 64485-60-5 64485-61-6 64485-62-7  
 64485-63-8 64485-64-9 64485-65-0 64485-66-1 64485-70-7  
 64485-71-8 64485-72-9 64485-73-0 64485-74-1 64485-75-2  
 64485-76-3 64485-77-4 64485-78-5 64485-79-6 64513-36-6  
 64513-37-7 64513-38-8 64513-39-9  
 (pigment, for fibers and plastics, preparation and spectra of)  
 IT 9002-86-2 9002-88-4 9003-07-0 9003-53-6  
 (pigments for, haloquinophthalones as)

L22 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:108000 HCAPLUS Full-text  
 DOCUMENT NUMBER: 86:108000  
 ORIGINAL REFERENCE NO.: 86:17052h,17053a  
 TITLE: Quinoline-based pigments  
 INVENTOR(S): Shimada, Keizo; Harada, Toshiaki; Koga, Masahiro  
 PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
 SOURCE: Ger. Offen., 47 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2626271	A1	19761223	DE 1976-2626271	19760611
			<--	
DE 2626271	B2	19800911		
DE 2626271	C3	19810514		
JP 51146543	A	19761216	JP 1975-70220	19750612
			<--	
JP 58013578	B	19830314		
JP 51146544	A	19761216	JP 1975-70221	19750612
			<--	
JP 58013579	B	19830314		
JP 51147544	A	19761217	JP 1975-70752	19750613
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JP 58012904	B	19830310		
PRIORITY APPLN. INFO.:			JP 1975-70220	A 19750612
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			JP 1975-70221	A 19750612
			<--	
			JP 1975-70752	A 19750613
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ED Entered STN: 12 May 1984  
 GI



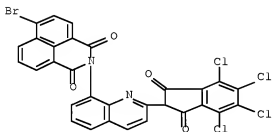
AB Yellow pigments with good thermal stability and weathering resistance have the general structure I, where R = H or Me, Z = 1,2-, 2,3-, or 1,8-naphthylene, optionally halo-substituted, and Z1 = arylene, optionally arylsulfonyl- or halo-substituted. I are useful for coloring plastics by melt incorporation, and have better heat stability than similar pigments where both Z and Z1 are tetrahalo-o-phenylene. Typical of .apprx.30 pigments, prepared by conventional condensation reactions, are I (R = H, Z = 1,8-ClO<sub>2</sub>H<sub>6</sub>, Z1 = tetrachloro-o-phenylene) [61866-94-2] and I (R = H, Z = Z1 = 1,2-ClO<sub>2</sub>H<sub>6</sub>) [61975-10-8]; IR-visible spectral data are given for all pigments.

IT 61975-28-8

(heat stability of, in polyethylene melts)

RN 61975-28-8 HCAPLUS

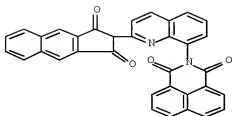
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-bromo-2-[2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



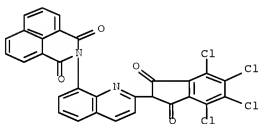
IT 61866-89-5D, brominated  
(pigment, for plastics)

RN 61866-89-5 HCAPLUS

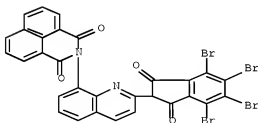
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



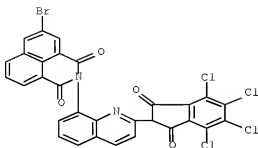
IT 61866-94-2  
 (pigment, for plastics, preparation and heat stability of)  
 RN 61866-94-2 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



IT 61866-82-8 61866-84-0 61866-85-1  
 61866-86-2 61866-88-4 61866-89-5  
 61866-16-3 61866-17-4 61975-06-2  
 61975-07-3 61975-08-4 61975-11-9  
 61975-12-0  
 (pigment, for plastics, preparation of)  
 RN 61866-82-8 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(4,5,6,7-tetrabromo-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)

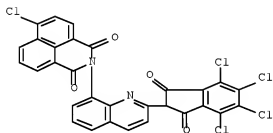


RN 61866-84-0 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-bromo-2-[2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



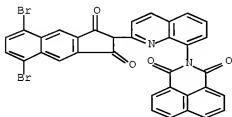
RN 61866-85-1 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-chloro-2-[2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



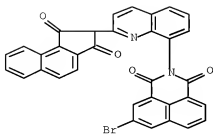
RN 61866-86-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(5,8-dibromo-2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



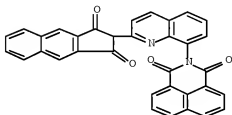
RN 61866-88-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-bromo-2-[2-(2,3-dihydro-1,3-dioxo-1H-benz[e]inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



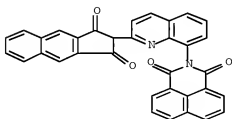
RN 61866-89-5 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



RN 61966-16-3 HCAPLUS

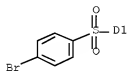
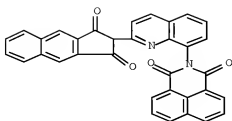
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(tetrahydro-2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl)-8-quinolinyl]- (9CI) (CA INDEX NAME)



4 ( D1-Br )

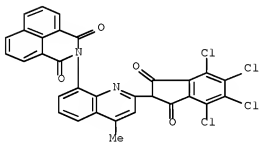
RN 61966-17-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-[[[4-bromophenyl]sulfonyl]-2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl]-8-quinolinyl]- (9CI) (CA INDEX NAME)



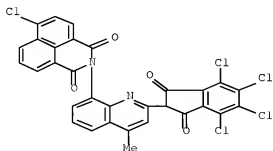
RN 61975-06-2 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[4-methyl-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



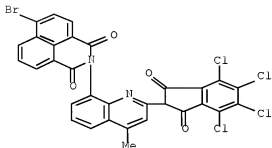
RN 61975-07-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-chloro-2-[4-methyl-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



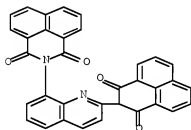
RN 61975-08-4 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-bromo-2-[4-methyl-2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



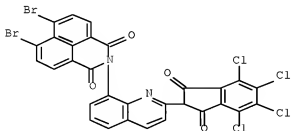
RN 61975-11-9 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(2,3-dihydro-1,3-dioxo-1H-phenalen-2-yl)-8-quinolinyl]- (CA INDEX NAME)



RN 61975-12-0 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,7-dibromo-2-[2-(4,5,6,7-tetrachloro-2,3-dihydro-1,3-dioxo-1H-inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)

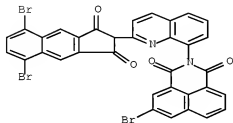


IT 61975-29-9

(pigment, for poly(methyl methacrylate))

RN 61975-29-9 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-bromo-2-[2-(5,8-dibromo-2,3-dihydro-1,3-dioxo-1H-benz[f]inden-2-yl)-8-quinolinyl]- (CA INDEX NAME)



IT 9002-88-4 9003-07-0 9003-53-6

9003-56-9

(pigments for, naphthaliminoquinoline derivs. as)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8





RN 9003-56-9 HCAPLUS  
 CN 2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (CA  
 INDEX NAME)

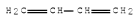
CM 1

CRN 107-13-1  
 CMF C3 H3 N



CM 2

CRN 106-99-0  
 CMF C4 H6



CM 3

CRN 100-42-5  
 CMF C8 H8



IC C09B025-00  
 CC 40-6 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 Section cross-reference(s): 36  
 ST quinoline deriv pigment; quinophthalone pigment; heat  
 stability pigment; plastic pigment; indanylquinoline pigment;  
 aminoquinoline imide pigment  
 IT 61975-28-8  
 (heat stability of, in polyethylene melts)  
 IT 61366-89-5D, brominated  
 (pigment, for plastics)  
 IT 61866-94-2 61966-18-5  
 (pigment, for plastics, preparation and heat stability of)  
 IT 61866-82-8 61866-84-0 61866-85-1  
 61866-36-2 61866-88-4 61866-89-5  
 61866-16-3 61866-17-4 61975-06-2

61975-07-3 61975-08-4 61975-10-8  
 61975-11-9 61975-12-0 61975-13-1 61975-14-2  
 61975-15-3 61975-16-4 61975-17-5 61975-18-6 61975-19-7  
 61975-20-0 61975-21-1 61975-22-2 61975-23-3 61975-24-4  
 61975-25-5 61975-26-6 61975-27-7 62031-71-4

(pigment, for plastics, preparation of)

IT 61975-29-9

(pigment, for poly(methyl methacrylate))

IT 9002-88-4 9003-07-0 9003-53-6

9003-56-9

(pigments for, naphthaliminoquinoline derivs. as)

L22 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:460241 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 83:60241

ORIGINAL REFERENCE NO.: 83:9521a,9524a

TITLE: Light stabilization of dyed polystyrenes  
 by organic luminophors

AUTHOR(S): Krasovitskii, B. M.; Knyaginina, I. P.; Barer, V.  
 E.; Faidel, G. I.; Solomatina, L. V.; Vinogradova,  
 N. P.

CORPORATE SOURCE: USSR

SOURCE: Plasticheskie Massy (1975), (4), 56-7

CODEN: PLMSAI; ISSN: 0554-2901

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

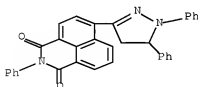
AB Lightfastness of azo dyes in polystyrene (I) [9003-53-6], the depth of color,  
 and the light resistance of I were improved by addition of organic  
 luminophors, e.g., luminophor II [21357-92-6]. Addition of II to Fat Soluble  
 Red S (III) [1229-55-6] prevented fading of the dye during 100-hr irradiation  
 by uv light. Incorporation of II and III produced more ordered structure in I  
 than that obtained by introducing only III. Identical structural changes  
 occurred during aging of I containing II or Tinuvin P.

IT 18618-86-5

(luminophors, for light stabilization of colored  
 polystyrene)

RN 18618-86-5 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-(4,5-dihydro-1,5-diphenyl-1H-  
 pyrazol-3-yl)-2-phenyl- (CA INDEX NAME)



IT 9003-53-6

(stabilization of colored, organic luminophors for)

RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5  
CMF C8 H8

$H_2C=CH-Ph$

CC 36-6 (Plastics Manufacture and Processing)  
ST luminophor org polystyrene stabilization; dye  
stabilization org luminophor; color stabilization  
org luminophor; light stabilizer org luminophor  
IT Light stabilizers  
(organic luminophors, for colored polystyrene)  
IT Phosphors  
(organic, stabilization of colored polystyrene by)  
IT Fluorescent brighteners  
(stabilization of colored polystyrene by)  
IT 742-01-8 18618-86-5 21357-92-6 23749-58-8  
(luminophors, for light stabilization of colored  
polystyrene)  
IT 9003-53-6  
(stabilization of colored, organic luminophors for)

L22 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1967:491380 HCAPLUS Full-text  
DOCUMENT NUMBER: 67:91380  
ORIGINAL REFERENCE NO.: 67:17247a,17250a  
TITLE: 1,8-Naphthalimide ultraviolet stabilizers  
for polymers  
INVENTOR(S): Dressler, Hans; Reabe, Kenneth G.  
PATENT ASSIGNEE(S): Koppers Co., Inc.  
SOURCE: U.S., 3 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3340225		19670905	US 1964-375949	19640617

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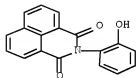
ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Polymers are stabilized against uv light degradation by the title compds. (I), where R is H or OH, and R1 is OEt or H when I was added at 0.1-4 weight%. Thus, 40 g. 1,8-naphthalic anhydride, 22 g. o-aminophenol, 100 ml. BuOH, and 100 ml. PhMe were refluxed for 6 hrs. while 3.1 ml. H2O was removed. The residue was slurried in PhMe and filtered to yield 47.2 g. product, which, when recrystd. from PhNO2, yielded 8.7 g. I (R1 = H, R = OH), m. 325-330°. This I (0.1 part) was blended with 100 parts polystyrene in a jar mill and the stabilized beads were extruded into pellets and formed into 2-in.-diameter disks by injection molding. The molded disks were exposed to uv radiation under a 325-w. lamp for 120 hrs. The yellowness index before exposure was 9.8 and after exposure was 13.5, giving a yellowness factor of 3.7. A control without stabilizer had a yellowness index of 8.4 before exposure and 15.3

after exposure, giving a yellowness factor of 6.9. I (R = H, R1 = OEt) was also used and low-d. polyethylene was also stabilized.

IT 6917-30-2  
 (as ultraviolet light stabilizer for ethylene polymers or styrene polymers)  
 RN 6917-30-2 HCAPLUS  
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(2-hydroxyphenyl)- (CA INDEX NAME)



IT 9002-88-4, uses and miscellaneous 9003-53-6, uses and miscellaneous  
 (ultraviolet light stabilizers for, naphthalimide derivs. as)  
 RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1  
 CMF C2 H4



RN 9003-53-6 HCAPLUS  
 CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5  
 CMF C8 H8



INCL 260045800  
 CC 36 (Plastics Manufacture and Processing)  
 ST NAPHTHALAMIDES UV STABILIZER; UV STABILIZER  
 NAPHTHALAMIDES; POLYSTYRENE UV STABILIZING; POLYETHYLENE UV STABILIZING; PLASTIC UV STABILIZING  
 IT Light, ultraviolet, chemical and physical effects  
 (stabilizers, naphthalimide derivs. as, for ethylene

polymers or styrene polymers)  
 IT 6917-36-2 15042-12-3  
 (as ultraviolet light stabilizer for ethylene polymers or  
 styrene polymers)  
 IT 9002-88-4, uses and miscellaneous 9003-53-6, uses  
 and miscellaneous  
 (ultraviolet light stabilizers for, naphthalimide derivs.  
 as)

L22 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:3313 HCAPLUS Full-text  
 DOCUMENT NUMBER: 60:3313  
 ORIGINAL REFERENCE NO.: 60:560d-g  
 TITLE: Phosphonic and thiophosphonic acid esters  
 INVENTOR(S): Lorenz, Walter; Schrader, Gerhard  
 PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
 SOURCE: 6 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 919908		19630227	GB 1961-20458	19610606
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DE 1207931			DE	
PRIORITY APPLN. INFO.:			DE	19600607
			<--	

ED Entered STN: 22 Apr 2001

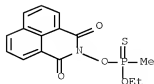
GI For diagram(s), see printed CA Issue.

AB A mixture of 64 g. naphthalimide, 39 g. 95% Et3N, and 165 ml. HCONMe2s is stirred at room temperature for 30 min. To this stirred mixture, cooled at 20-5°, is added 43.5 g. methylthionophosphonic acid O-Me ester chloride. Stirring is continued for 30 min. at room temperature and 500 ml. water added. The product is worked up to give 72 g. (75%) I (R = Me, R' = MeO), m. 200° (decomposition). Similarly are prepared the following I (R, R', % yield, and m.p. given): Bu, MeO, -, -; ClCH2, MeO, -, -; cyclohexyl, MoO, -, -; Ph, MoO, -, -; Et, MeO, 74.6, 162°; Et, EtO, 87.7, 159°; Me, EtO, 71, 194° (decomposition); Me2C:CH, EtO, 78.4, 161° (decomposition); EtSCH:CH, EtO, 84.8, 166°. II-VII are also similarly prepared I-VII exhibit insecticidal activity, both by direct exposure and by systemic action

IT 74835-79-3P, Naphthalimide, N-hydroxy-, O-ethyl  
 methylphosphonothioate  
 (preparation of)

RN 74835-79-3 HCAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(ethoxymethylphosphinothioyl)  
 oxy]- (9CI) (CA INDEX NAME)



IT 9003-07-0, Propene polymers  
 (stabilization of, by phosphonic acid esters)  
 RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (CA INDEX NAME)

CM 1

CRN 115-07-1  
 CMF C3 H6



IC C07F  
 CC 39 (Organometallic and Organometalloidal Compounds)  
 IT 74835-79-3P, Naphthalimide, N-hydroxy-, O-ethyl  
 methylphosphonothioate 89830-96-6P, Maleimide, N-hydroxy-, O-methyl  
 methylphosphonothioate 91468-83-6P, 2,6-Piperazinedione, 1-hydroxy-,  
 O-methyl methylphosphonothioate 91724-89-9P, Glutarimide,  
 N-hydroxy-, O-methyl methylphosphonothioate 91746-44-0P,  
 Succinimide, N-hydroxy-, O-methyl methylphosphonothioate  
 93029-25-5P, Phthalimide, N-hydroxy-, O-methyl methylphosphonothioate  
 93115-22-1P, 4-Cyclohexene-1,2-dicarboximide, N-hydroxy-, O-methyl  
 methylphosphonothioate 96295-03-3P, Naphthalimide, N-hydroxy-,  
 O-methyl (chloromethyl)phosphonothioate 97638-15-8P, Naphthalimide,  
 N-hydroxy-, O-ethyl ethylphosphonothioate 98251-40-2P,  
 Naphthalimide, N-hydroxy-, O-isopropyl ethylphosphonothioate  
 98471-47-7P, Naphthalimide, N-hydroxy-, O-ethyl (2-  
 methylpropenyl)phosphonothioate 98471-48-8P, Naphthalimide,  
 N-hydroxy-, O-ethyl [2-(ethylthio)vinyl]phosphonothioate  
 98471-49-9P, Naphthalimide, N-hydroxy-, O-ethyl (2-  
 ethoxyvinyl)phosphonothioate 98562-15-3P, Naphthalimide, N-hydroxy-,  
 O-methyl ethylphosphonothioate 98596-27-1P, Naphthalimide,  
 N-hydroxy-, O-propyl methylphosphonothioate 98596-28-2P,  
 Naphthalimide, N-hydroxy-, ethyl ethylphosphonate 98655-30-2P,  
 Naphthalimide, N-hydroxy-, O-methyl phenylphosphonothioate  
 106978-86-3P, Naphthalimide, N-hydroxy-, O-methyl  
 cyclohexylphosphonothioate  
 (preparation of)  
 IT 9003-07-0, Propene polymers  
 (stabilization of, by phosphonic acid esters)

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(FILE 'HOME' ENTERED AT 13:22:53 ON 22 JAN 2008)

FILE 'HCAPLUS' ENTERED AT 13:23:02 ON 22 JAN 2008

L1 1 SEA ABB=ON PLU=ON US20070100033/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 13:23:20 ON 22 JAN 2008

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1722-18-5/BI OR 178671-58-4/BI OR 1843-05-6/BI OR 187536-93  
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25973-55-1/BI OR 26062-94-2/BI OR 2725-22-6/BI OR 3147-75-9  
/BI OR 35344-07-1/BI OR 36437-37-3/BI OR 3864-99-1/BI OR  
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852282-97-4/BI OR 852282-98-5/BI OR 9002-88-4/BI OR  
9003-07-0/BI OR 9003-49-0/BI OR 9003-53-6/BI OR 9003-54-7/B  
I OR 9003-56-9/BI OR 9003-63-8/BI OR 9011-14-7/BI OR  
95-14-7/BI)  
L3 18 SEA ABB=ON PLU=ON L2 AND ISOQUINOLINE?  
L4 22169 SEA ABB=ON PLU=ON 1784.14/RID  
L5 9577 SEA ABB=ON PLU=ON L4 AND DIONE?

FILE 'HCAPLUS' ENTERED AT 13:26:35 ON 22 JAN 2008

L6 11 SEA ABB=ON PLU=ON L3  
L7 3767 SEA ABB=ON PLU=ON L5  
E ACRYLIC POLYMERS, USES/CT  
L8 41184 SEA ABB=ON PLU=ON "ACRYLIC POLYMERS, USES"+PFT,NT/CT  
E POLYCARBONATES, USES/CT  
L9 24870 SEA ABB=ON PLU=ON "POLYCARBONATES, USES"+PFT,NT/CT  
E POLYESTERS, USES/CT  
L10 92534 SEA ABB=ON PLU=ON "POLYESTERS, USES"+PFT,NT/CT  
E POLYOLEFINS/CT  
L11 625142 SEA ABB=ON PLU=ON POLYOLEFINS+PFT,NT/CT  
E POLYURETHANES, USES/CT  
L12 49945 SEA ABB=ON PLU=ON "POLYURETHANES, USES"+PFT,NT/CT  
E POLYVINYL ACETALS/CT  
L13 18151 SEA ABB=ON PLU=ON "POLYVINYL ACETALS"+PFT,NT/CT  
E POLYVINYL BUTYRALS/CT  
L14 12936 SEA ABB=ON PLU=ON "POLYVINYL BUTYRALS"+PFT,NT/CT  
L15 219 SEA ABB=ON PLU=ON L7 AND ((L8 OR L9 OR L10 OR L11 OR L12  
OR L13 OR L14))  
L16 1 SEA ABB=ON PLU=ON L15 AND L1  
E LIGHT STABILIZERS/CT  
L17 16585 SEA ABB=ON PLU=ON "LIGHT STABILIZERS"+PFT,NT/CT  
E UV STABILIZERS/CT  
L18 8000 SEA ABB=ON PLU=ON "UV STABILIZERS"+PFT,NT/CT  
L19 12 SEA ABB=ON PLU=ON L15 AND (L17 OR L18)  
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L21 39 SEA ABB=ON PLU=ON L19 OR L20

L22

34 SEA ABB=ON PLU=ON L21 AND (1840-2003)/PRY,AY,PY